2016 National Patient Safety Goals: What You Need to Know

January 28, 2016
About Joint Commission Resources

Joint Commission Resources (JCR) is a client-focused, expert resource for healthcare organizations. It partners with these organizations, providing consulting services, educational services, and publications to assist in improving the quality, safety, and efficiency of healthcare services, and to assist in meeting the accreditation standards of The Joint Commission. JCR is a subsidiary of The Joint Commission, but provides services independently and confidentially, disclosing no information about its clients to The Joint Commission or others. Visit our web site at: www.jcrinc.com.

Disclaimers

Joint Commission Resources educational programs and publications support, but are separate from, the accreditation activities of The Joint Commission. Attendees at Joint Commission Resources educational programs and purchasers of Joint Commission Resources publications receive no special consideration or treatment in, or confidential information about, the accreditation process.

The information in this Resource Guide has been compiled for educational purposes only and does not constitute any product, service, or process endorsement by The Joint Commission or organizations collaborating with The Joint Commission in the content of these programs.

NOTE: Interactivation Health Networks is the distributor of the Joint Commission Resources Quality & Safety Network series and has no influence on the content of the series.

©2016 Joint Commission Resources. The purchaser of this educational package is granted limited rights to photocopy this Resource Guide for internal educational use only. All other rights reserved.

Requests for permission to make copies of this publication for any use not covered by these limited rights should be made in writing to: Department of Education Programs, Joint Commission Resources, One Renaissance Boulevard, Oakbrook Terrace, IL 60181.
# TABLE OF CONTENTS

Program Summary ................................................................................................................................................. 4
Program Outline..................................................................................................................................................... 5
Continuing Education (CE) Credit ........................................................................................................................ 6
National Patient Safety Goals Effective January 1, 2016 – Hospital Accreditation Program............................... 7
National Patient Safety Goal Self-Assessment.................................................................................................... 24
Lessons in Alarm Safety from Uncle Sam........................................................................................................... 40
Why Hand Hygiene? ............................................................................................................................................ 43
5 Sure-Fire Methods: The Universal Protocol for Preventing Wrong Site, Wrong Procedure, and Wrong Person Surgery ............................................................................................................................. 49
Providing Optimum Care: Northport Veterans Affairs Medical Center Improves Anticoagulant Safety...... 51
Appendix A: Additional Resources ...................................................................................................................... 55
Appendix B: Faculty Biographies ....................................................................................................................... 56
Appendix C: Continuing Education (CE) Accrediting Bodies ........................................................................... 57
Appendix D: Discipline Codes Instructions ........................................................................................................ 58
Appendix E: Post-Test ........................................................................................................................................ 59
Appendix F: JCRQSN Contact Information ....................................................................................................... 61
Program Summary

This page provides an overview of the program content and learning objectives. Please refer to the Table of Contents and Program Outline for a detailed list of the topics covered. The information included in this Resource Guide is intended to support but not duplicate the video presentation content. There may be additional information available online for this topic.

Program Description

In 2002, The Joint Commission established its National Patient Safety Goals (NPSGs) program; the first set of NPSGs was effective January 1, 2003. The NPSGs were established to help accredited organizations address specific areas of concern in regard to patient safety.

A panel of widely-recognized patient safety experts advises The Joint Commission on the development and updating of NPSGs. This panel, called the Patient Safety Advisory Group, is composed of nurses, physicians, pharmacists, risk managers, clinical engineers, and other professionals who have hands-on experience in addressing patient safety issues in a wide variety of healthcare settings.

This 60-minute program provides an overview to the 2016 NPSGs. Discussion focuses on patient safety principles, developing measures for NPSGs, data collection and analysis, the challenges, strategies, tips, and good practices for improving systems related to the challenging NPSGs. The program includes discussion, case studies on good practice examples, and the opportunity for participants to identify strategies that can be implemented immediately within their organizations.

Program Objectives

After completing this activity, the participant should be able to:

1. Describe the need for the NPSGs and Requirements.
2. Explain the 2016 NPSGs and Requirements that are appropriate to the services their organization provides.
3. Identify compliance strategies for the newest, most challenging NPSGs and Requirements.

Target Audience

This activity is relevant to the entire hospital and medical staff, particularly organization leaders, managers, and supervisors, and staff responsible for performance improvement (PI), patient safety, and risk management initiatives.
Program Outline

2016 National Patient Safety Goals: What You Need to Know

January 28, 2016

I. Introduction
   A. Program Content
   B. Objectives
   C. Faculty

II. An Overview of the 2016 NPSGs for Hospitals

III. Sample Individual Tracers Related to NPSGs

IV. Sample System Tracers Related to NPSGs

V. Conclusion

VI. Post-Program Live Question and Answer Session
   A. Audio only telephone seminar with program faculty – for 30 minutes following the program.
   B. Call 1-888-206-0090; enter conference code: 7925428.
      Or e-mail your questions or comments to: Questions@jcrqsn.com

<table>
<thead>
<tr>
<th>Program Broadcast Time</th>
<th>Eastern: 2:00 p.m. to 3:00 p.m.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Central: 1:00 p.m. to 2:00 p.m.</td>
</tr>
<tr>
<td></td>
<td>Mountain: 12:00 p.m. to 1:00 p.m.</td>
</tr>
<tr>
<td></td>
<td>Pacific: 11:00 a.m. to 12:00 p.m.</td>
</tr>
</tbody>
</table>

Program Question and Answer Session

During the live airing of this program on January 28, 2016, you may be able to talk directly with the faculty when prompted by the program’s host. After this date, your message will be forwarded to the appropriate personnel.

Immediately following the program, we invite you to join in a live discussion with the program presenters. Call 1-888-206-0090 and enter Conference Code: 7925428 to be included in the teleconference.

To submit your question ahead of time or for additional details, please send an e-mail to questions@jcrqsn.com. If you submit your questions after this date, your message will be forwarded to the appropriate personnel.

You can also receive answers to your questions by calling The Joint Commission’s Standards Interpretation Hotline at 630-792-5900, option 6.
Continuing Education (CE) Credit

After viewing the JCR Quality & Safety Network presentation and reading this Resource Guide, please complete the required online CE/CME credit activities (test and feedback form). The test measures knowledge gained and/or provides a means of self-assessment on a specific topic. The feedback form provides us with valuable information regarding your thoughts on the activity’s quality and effectiveness.

NOTE: Effective April 1, 2012, the Learning Management System web site URL changed as noted below.

Prior to the Program Presentation Day
1. Login to the JCRQSN Learning Management System web site at http://twnlms.com/
2. Enroll yourself into the program
   Note: Your administrator may have already enrolled you in the program
   • Select All Courses from the courses menu.
   • Select the course category for the current year, 2016 Programs.
   • Select the course for this program, 2016 National Patient Safety Goals: What You Need to Know
   • When prompted, choose Yes to confirm that you would like to enroll yourself.
3. Display and print the desire documents (Resource Guide, etc.).

Online Process for CE/CME Credit
1. Read the course materials and view the entire presentation.
2. Login to the JCRQSN Learning Management System web site at http://twnlms.com/
   Note: This assumes you have already been enrolled in the program as described above.
4. If you didn’t view the broadcast video presentation, view it online.
5. Complete the online post test (see Appendix E).
   • You have up to three attempts to successfully complete the test with a minimum passing score of 80%.
   • Physicians must take the post test to obtain credit.
6. Complete the program feedback form.
7. On the top right corner of the main course page, you will see your completion status in the Status block.
8. Select Print Certificate from within the Status block to print your completion certificate.
National Patient Safety Goals Effective January 1, 2016 – Hospital Accreditation Program

Goal 1
Improve the accuracy of patient identification.

NPSG.01.01.01
Use at least two patient identifiers when providing care, treatment, and services.

--Rationale for NPSG.01.01.01--
Wrong-patient errors occur in virtually all stages of diagnosis and treatment. The intent for this goal is two-fold: first, to reliably identify the individual as the person for whom the service or treatment is intended; second, to match the service or treatment to that individual. Acceptable identifiers may be the individual’s name, an assigned identification number, telephone number, or other person-specific identifier.

Elements of Performance for NPSG.01.01.01

1. Use at least two patient identifiers when administering medications, blood, or blood components; when collecting blood samples and other specimens for clinical testing; and when providing treatments or procedures. The patient's room number or physical location is not used as an identifier. (See also MM.05.01.09, EPs 8 and 11; NPSG.01.03.01, EP 1)

2. Label containers used for blood and other specimens in the presence of the patient. (See also NPSG.01.03.01, EP 1)

NPSG.01.03.01
Eliminate transfusion errors related to patient misidentification.

Elements of Performance for NPSG.01.03.01

1. Before initiating a blood or blood component transfusion:
   - Match the blood or blood component to the order.
   - Match the patient to the blood or blood component.
   - Use a two-person verification process or a one-person verification process accompanied by automated identification technology, such as bar coding. (See also NPSG.01.01.01, EPs 1 and 2)

2. When using a two-person verification process, one individual conducting the identification verification is the qualified transfusionist who will administer the blood or blood component to the patient.

3. When using a two-person verification process, the second individual conducting the identification verification is qualified to participate in the process, as determined by the hospital.

KEY: R indicates risk area; A indicates a scoring category; C indicates scoring category; D indicates documentation is required; M indicates Measure of Success; △ indicates situational decisions rules apply; ▲ indicates direct impact requirements apply
Goal 2
Improve the effectiveness of communication among caregivers.

NPSG.02.03.01
Report critical results of tests and diagnostic procedures on a timely basis.

--Rationale for NPSG.02.03.01--
Critical results of tests and diagnostic procedures fall significantly outside the normal range and may indicate a life-threatening situation. The objective is to provide the responsible licensed caregiver these results within an established time frame so that the patient can be promptly treated.

Elements of Performance for NPSG.02.03.01

1. Develop written procedures for managing the critical results of tests and diagnostic procedures that address the following:
   - The definition of critical results of tests and diagnostic procedures
   - By whom and to whom critical results of tests and diagnostic procedures are reported
   - The acceptable length of time between the availability and reporting of critical results of tests and diagnostic procedures

2. Implement the procedures for managing the critical results of tests and diagnostic procedures.

3. Evaluate the timeliness of reporting the critical results of tests and diagnostic procedures.

Goal 3
Improve the safety of using medications.

NPSG.03.04.01
Label all medications, medication containers, and other solutions on and off the sterile field in perioperative and other procedural settings. Note: Medication containers include syringes, medicine cups, and basins.

--Rationale for NPSG.03.04.01--
Medications or other solutions in unlabeled containers are unidentifiable. Errors, sometimes tragic, have resulted from medications and other solutions removed from their original containers and placed into unlabeled containers. This unsafe practice neglects basic principles of safe medication management, yet it is routine in many organizations.
The labeling of all medications, medication containers, and other solutions is a risk-reduction activity consistent with safe medication management. This practice addresses a recognized risk point in the administration of medications in perioperative and other procedural settings. Labels for medications and medication containers are also addressed at MM.05.01.09.
### Elements of Performance for NPSG.03.04.01

1. In perioperative and other procedural settings both on and off the sterile field, label medications and solutions that are not immediately administered. This applies even if there is only one medication being used. Note: An immediately administered medication is one that an authorized staff member prepares or obtains, takes directly to a patient, and administers to that patient without any break in the process. Refer to NPSG.03.04.01, EP 5, for information on timing of labeling.

2. In perioperative and other procedural settings both on and off the sterile field, labeling occurs when any medication or solution is transferred from the original packaging to another container.

3. In perioperative and other procedural settings both on and off the sterile field, medication or solution labels include the following:
   - Medication or solution name
   - Strength
   - Amount of medication or solution containing medication (if not apparent from the container)
   - Diluent name and volume (if not apparent from the container)
   - Expiration date when not used within 24 hours
   - Expiration time when expiration occurs in less than 24 hours
     Note: The date and time are not necessary for short procedures, as defined by the hospital.

4. Verify all medication or solution labels both verbally and visually. Verification is done by two individuals qualified to participate in the procedure whenever the person preparing the medication or solution is not the person who will be administering it.

5. Label each medication or solution as soon as it is prepared, unless it is immediately administered. Note: An immediately administered medication is one that an authorized staff member prepares or obtains, takes directly to a patient, and administers to that patient without any break in the process.

6. Immediately discard any medication or solution found unlabeled.

7. Remove all labeled containers on the sterile field and discard their contents at the conclusion of the procedure. Note: This does not apply to multiuse vials that are handled according to infection control practices.

8. All medications and solutions both on and off the sterile field and their labels are reviewed by entering and exiting staff responsible for the management of medications.
NPSG.03.05.01
Reduce the likelihood of patient harm associated with the use of anticoagulant therapy. Note: This requirement applies only to hospitals that provide anticoagulant therapy and/or long-term anticoagulation prophylaxis (for example, atrial fibrillation) where the clinical expectation is that the patient’s laboratory values for coagulation will remain outside normal values. This requirement does not apply to routine situations in which short-term prophylactic anticoagulation is used for venous thrombo-embolism prevention (for example, related to procedures or hospitalization) and the clinical expectation is that the patient’s laboratory values for coagulation will remain within, or close to, normal values.

--Rationale for NPSG.03.05.01--
Anticoagulation therapy can be used as therapeutic treatment for a number of conditions, the most common of which are atrial fibrillation, deep vein thrombosis, pulmonary embolism, and mechanical heart valve implant. However, it is important to note that anticoagulation medications are more likely than others to cause harm due to complex dosing, insufficient monitoring, and inconsistent patient compliance. This National Patient Safety Goal has great potential to positively impact the safety of patients on this class of medications and result in better outcomes.

To achieve better patient outcomes, patient education is a vital component of an anticoagulation therapy program. Effective anticoagulation patient education includes face-to-face interaction with a trained professional who works closely with patients to be sure that they understand the risks involved with anticoagulation therapy, the precautions they need to take, and the need for regular International Normalized Ratio (INR) monitoring. The use of standardized practices for anticoagulation therapy that include patient involvement can reduce the risk of adverse drug events associated with heparin (unfractionated), low molecular weight heparin, and warfarin.

Elements of Performance for NPSG.03.05.01

1. Use only oral unit-dose products, prefilled syringes, or premixed infusion bags when these types of products are available. Note: For pediatric patients, prefilled syringe products should be used only if specifically designed for children.

2. Use approved protocols for the initiation and maintenance of anticoagulant therapy.

3. Before starting a patient on warfarin, assess the patient’s baseline coagulation status; for all patients receiving warfarin therapy, use a current International Normalized Ratio (INR) to adjust this therapy. The baseline status and current INR are documented in the medical record. Note: The patient’s baseline coagulation status can be assessed in a number of ways, including through a laboratory test or by identifying risk factors such as age, weight, bleeding tendency, and genetic factors.

4. Use authoritative resources to manage potential food and drug interactions for patients receiving warfarin.

5. When heparin is administered intravenously and continuously, use programmable pumps in order to provide consistent and accurate dosing.

6. A written policy addresses baseline and ongoing laboratory tests that are required for anticoagulants.
Introduction to Reconciling Medication Information

The large number of people receiving health care who take multiple medications and the complexity of managing those medications make medication reconciliation an important safety issue. In medication reconciliation, a clinician compares the medications a patient should be using (and is actually using) to the new medications that are ordered for the patient and resolves any discrepancies.

The Joint Commission recognizes that organizations face challenges with medication reconciliation. The best medication reconciliation requires a complete understanding of what the patient was prescribed and what medications the patient is actually taking. It can be difficult to obtain a complete list from every patient in an encounter, and accuracy is dependent on the patient’s ability and willingness to provide this information. A good faith effort to collect this information is recognized as meeting the intent of the requirement. As health care evolves with the adoption of more sophisticated systems (such as centralized databases for prescribing and collecting medication information), the effectiveness of these processes will grow.

This National Patient Safety Goal (NPSG) focuses on the risk points of medication reconciliation. The elements of performance in this NPSG are designed to help organizations reduce negative patient outcomes associated with medication discrepancies. Some aspects of the care process that involve the management of medications are addressed in the standards rather than in this goal. These include coordinating information during transitions in care both within and outside of the organization (PC.02.02.01), patient education on safe medication use (PC.02.03.01), and communications with other providers (PC.04.02.01).

In settings where medications are not routinely prescribed or administered, this NPSG provides organizations with the flexibility to decide what medication information they need to collect based on the services they provide to patients. It is often important for clinicians to know what medications the patient is taking when planning care, treatment, and services, even in situations where medications are not used. A new requirement in this NPSG addresses the patient’s role in medication safety: it requires organizations to inform the patient about the importance of maintaining updated medication information.

NPSG.03.06.01
Maintain and communicate accurate patient medication information.

--Rationale for NPSG.03.06.01--

There is evidence that medication discrepancies can affect patient outcomes. Medication reconciliation is intended to identify and resolve discrepancies—it is a process of comparing the medications a patient is taking (and should be taking) with newly ordered medications. The comparison addresses duplications, omissions, and interactions, and the need to continue current medications. The types of information that clinicians use to reconcile medications include (among others) medication name, dose, frequency, route, and purpose. Organizations should identify the information that needs to be collected to reconcile current and newly ordered medications and to safely prescribe medications in the future.
Elements of Performance for NPSG.03.06.01

1. Obtain information on the medications the patient is currently taking when he or she is admitted to the hospital or is seen in an outpatient setting. This information is documented in a list or other format that is useful to those who manage medications. Note 1: Current medications include those taken at scheduled times and those taken on an as-needed basis. See the Glossary for a definition of medications. Note 2: It is often difficult to obtain complete information on current medications from a patient. A good faith effort to obtain this information from the patient and/or other sources will be considered as meeting the intent of the EP.

2. Define the types of medication information to be collected in non–24-hour settings and different patient circumstances. Note 1: Examples of non–24-hour settings include the emergency department, primary care, outpatient radiology, ambulatory surgery, and diagnostic settings. Note 2: Examples of medication information that may be collected include name, dose, route, frequency, and purpose.

3. Compare the medication information the patient brought to the hospital with the medications ordered for the patient by the hospital in order to identify and resolve discrepancies. Note: Discrepancies include omissions, duplications, contraindications, unclear information, and changes. A qualified individual, identified by the hospital, does the comparison. (See also HR.01.06.01, EP 1)

4. Provide the patient (or family as needed) with written information on the medications the patient should be taking when he or she is discharged from the hospital or at the end of an outpatient encounter (for example, name, dose, route, frequency, purpose). Note: When the only additional medications prescribed are for a short duration, the medication information the hospital provides may include only those medications. For more information about communications to other providers of care when the patient is discharged or transferred, refer to Standard PC.04.02.01.

5. Explain the importance of managing medication information to the patient when he or she is discharged from the hospital or at the end of an outpatient encounter. Note: Examples include instructing the patient to give a list to his or her primary care physician; to update the information when medications are discontinued, doses are changed, or new medications (including over-the-counter products) are added; and to carry medication information at all times in the event of emergency situations. (For information on patient education on medications, refer to Standards MM.06.01.03, PC.02.03.01, and PC.04.01.05.)
Goal 6
Reduce the harm associated with clinical alarm systems.

NPSG.06.01.01
Improve the safety of clinical alarm systems.

Clinical alarm systems are intended to alert caregivers of potential patient problems, but if they are not properly managed, they can compromise patient safety. This is a multifaceted problem. In some situations, individual alarm signals are difficult to detect. At the same time, many patient care areas have numerous alarm signals and the resulting noise and displayed information tends to desensitize staff and cause them to miss or ignore alarm signals or even disable them. Other issues associated with effective clinical alarm system management include too many devices with alarms, default settings that are not at an actionable level, and alarm limits that are too narrow. These issues vary greatly among hospitals and even within different units in a single hospital.

There is general agreement that this is an important safety issue. Universal solutions have yet to be identified, but it is important for a hospital to understand its own situation and to develop a systematic, coordinated approach to clinical alarm system management. Standardization contributes to safe alarm system management, but it is recognized that solutions may have to be customized for specific clinical units, groups of patients, or individual patients. This NPSG focuses on managing clinical alarm systems that have the most direct relationship to patient safety. As alarm system management solutions are identified, this NPSG will be updated to reflect best practices.

Footnote *: Additional information on alarm safety can be found on the AAMI website http://www.aami.org/htsi/alarms/. Also, the ECRI Institute has identified alarm hazards as one of the top technology hazards for 2013; more information on this hazard list can be found at http://www.ecri.org/Forms/Pages/Alarm_Safety_Resource.aspx.

Elements of Performance for NPSG.06.01.01

1. Leaders establish alarm system safety as a hospital priority.

2. Identify the most important alarm signals to manage based on the following:
   - Input from the medical staff and clinical departments
   - Risk to patients if the alarm signal is not attended to or if it malfunctions
   - Whether specific alarm signals are needed or unnecessarily contribute to alarm noise and alarm fatigue
   - Potential for patient harm based on internal incident history
   - Published best practices and guidelines

   For more information on managing medical equipment risks, refer to Standard EC.02.04.01.)
3. Establish policies and procedures for managing the alarms identified in EP 2 above that, at a minimum, address the following:
   - Clinically appropriate settings for alarm signals
   - When alarm signals can be disabled
   - When alarm parameters can be changed
   - Who in the organization has the authority to set alarm parameters
   - Who in the organization has the authority to change alarm parameters
   - Who in the organization has the authority to set alarm parameters to “off”
   - Monitoring and responding to alarm signals
   - Checking individual alarm signals for accurate settings, proper operation, and detectability
   (For more information, refer to Standard EC.02.04.03)

4. Educate staff and licensed independent practitioners about the purpose and proper operation of alarm systems for which they are responsible.

---

Goal 7
Reduce the risk of health care-associated infections.

NPSG.07.01.01
Comply with either the current Centers for Disease Control and Prevention (CDC) hand hygiene guidelines or the current World Health Organization (WHO) hand hygiene guidelines.

--Rationale for NPSG.07.01.01--
According to the Centers for Disease Control and Prevention, each year, millions of people acquire an infection while receiving care, treatment, and services in a health care organization. Consequently, health care–associated infections (HAIs) are a patient safety issue affecting all types of health care organizations. One of the most important ways to address HAIs is by improving the hand hygiene of health care staff. Compliance with the World Health Organization (WHO) or Centers for Disease Control and Prevention (CDC) hand hygiene guidelines will reduce the transmission of infectious agents by staff to patients, thereby decreasing the incidence of HAIs. To ensure compliance with this National Patient Safety Goal, an organization should assess its compliance with the CDC and/or WHO guidelines through a comprehensive program that provides a hand hygiene policy, fosters a culture of hand hygiene, and monitors compliance and provides feedback.

Elements of Performance for NPSG.07.01.01

1. Implement a program that follows categories IA, IB, and IC of either the current Centers for Disease Control and Prevention (CDC) or the current World Health Organization (WHO) hand hygiene guidelines. (See also IC.01.04.01, EP 5)

2. Set goals for improving compliance with hand hygiene guidelines. (See also IC.03.01.01, EP 3)

3. Improve compliance with hand hygiene guidelines based on established goals.
NPSG.07.03.01
Implement evidence-based practices to prevent health care–associated infections due to multidrug-resistant organisms in acute care hospitals. Note: This requirement applies to, but is not limited to, epidemiologically important organisms such as methicillin-resistant staphylococcus aureus (MRSA), clostridium difficile (CDI), vancomycin-resistant enterococci (VRE), and multidrug-resistant gram-negative bacteria.

--Rationale for NPSG.07.03.01--
Patients continue to acquire health care-associated infections at an alarming rate. Risks and patient populations, however, differ between hospitals. Therefore, prevention and control strategies must be tailored to the specific needs of each hospital based on its risk assessment. The elements of performance for this requirement are designed to help reduce or prevent health care–associated infections from epidemiologically important multidrug-resistant organisms (MDROs).

Note: Hand hygiene, contact precautions, as well as cleaning and disinfecting patient care equipment and the patient’s environment are essential strategies for preventing the spread of health care–associated infections. Hand hygiene is addressed in NPSG.07.01.01. Contact precautions for patients with epidemiologically significant multidrug-resistant organisms (MDROs) are covered in IC.02.01.01, EP 3. Cleaning and disinfecting patient care equipment are addressed in IC.02.02.01.

Elements of Performance for NPSG.07.03.01

1. Conduct periodic risk assessments (in time frames defined by the hospital) for multidrug-resistant organism acquisition and transmission. (See also IC.01.03.01, EPs 1-5)  
   R  A

2. Based on the results of the risk assessment, educate staff and licensed independent practitioners about health care–associated infections, multidrug-resistant organisms, and prevention strategies at hire and annually thereafter. Note: The education provided recognizes the diverse roles of staff and licensed independent practitioners and is consistent with their roles within the hospital. 
   R  C  M

3. Educate patients, and their families as needed, who are infected or colonized with a multidrug-resistant organism about health care–associated infection prevention strategies. 
   R  C  M

4. Implement a surveillance program for multidrug-resistant organisms based on the risk assessment. Note: Surveillance may be targeted rather than hospitalwide. 
   R  A

5. Measure and monitor multidrug-resistant organism prevention processes and outcomes, including the following: 
   – Multidrug-resistant organism infection rates using evidence-based metrics
   – Compliance with evidence-based guidelines or best practices
   – Evaluation of the education program provided to staff and licensed independent practitioners 
     Note: Surveillance may be targeted rather than hospitalwide. 
   R  A

6. Provide multidrug-resistant organism process and outcome data to key stakeholders, including leaders, licensed independent practitioners, nursing staff, and other clinicians. 
   R  A

7. Implement policies and practices aimed at reducing the risk of transmitting multidrug-resistant organisms. These policies and practices meet regulatory requirements and are aligned with evidence-based standards (for example, the Centers for Disease Control and Prevention (CDC) and/or professional organization guidelines). 
   R  C  3
8. When indicated by the risk assessment, implement a laboratory-based alert system that identifies new patients with multidrug-resistant organisms. Note: The alert system may use telephones, faxes, pagers, automated and secure electronic alerts, or a combination of these methods.

9. When indicated by the risk assessment, implement an alert system that identifies readmitted or transferred patients who are known to be positive for multidrug-resistant organisms. Note 1: The alert system information may exist in a separate electronic database or may be integrated into the admission system. The alert system may be either manual or electronic or a combination of both. Note 2: Each hospital may define its own parameters in terms of time and clinical manifestation to determine which re-admitted patients require isolation.

NPSG.07.04.01
Implement evidence-based practices to prevent central line–associated bloodstream infections. Note: This requirement covers short- and long-term central venous catheters and peripherally inserted central catheter (PICC) lines.

Elements of Performance for NPSG.07.04.01
1. Educate staff and licensed independent practitioners who are involved in managing central lines about central line–associated bloodstream infections and the importance of prevention. Education occurs upon hire, annually thereafter, and when involvement in these procedures is added to an individual’s job responsibilities.

2. Prior to insertion of a central venous catheter, educate patients and, as needed, their families about central line–associated bloodstream infection prevention.

3. Implement policies and practices aimed at reducing the risk of central line–associated bloodstream infections. These policies and practices meet regulatory requirements and are aligned with evidence-based standards (for example, the Centers for Disease Control and Prevention (CDC) and/or professional organization guidelines).

4. Conduct periodic risk assessments for central line–associated bloodstream infections, monitor compliance with evidence-based practices, and evaluate the effectiveness of prevention efforts. The risk assessments are conducted in time frames defined by the hospital, and this infection surveillance activity is hospitalwide, not targeted.

5. Provide central line–associated bloodstream infection rate data and prevention outcome measures to key stakeholders, including leaders, licensed independent practitioners, nursing staff, and other clinicians.

6. Use a catheter checklist and a standardized protocol for central venous catheter insertion.

7. Perform hand hygiene prior to catheter insertion or manipulation.
8. For adult patients, do not insert catheters into the femoral vein unless other sites are unavailable.

9. Use a standardized supply cart or kit that contains all necessary components for the insertion of central venous catheters.

10. Use a standardized protocol for sterile barrier precautions during central venous catheter insertion.

11. Use an antiseptic for skin preparation during central venous catheter insertion that is cited in scientific literature or endorsed by professional organizations. *Footnote*: A limited number of National Patient Safety Goals contain requirements for practices that reflect current science and medical knowledge. In these cases, the element of performance refers to a practice that is cited in scientific literature or endorsed by professional organizations. This means that the practice used by the hospital must be validated by an authoritative source. The authoritative source may be a study published in a peer-reviewed journal that clearly demonstrates the efficacy of that practice or endorsement of the practice by a professional organization(s) and/or a government agency(ies). It is not acceptable to follow a practice that is not supported by evidence or wide-spread consensus. During the on-site survey, surveyors will explore the source of the practices the hospital follows.

12. Use a standardized protocol to disinfect catheter hubs and injection ports before accessing the ports.

13. Evaluate all central venous catheters routinely and remove nonessential catheters.

**NPSG.07.05.01**

Implement evidence-based practices for preventing surgical site infections.

**Elements of Performance for NPSG.07.05.01**

1. Educate staff and licensed independent practitioners involved in surgical procedures about surgical site infections and the importance of prevention. Education occurs upon hire, annually thereafter, and when involvement in surgical procedures is added to an individual’s job responsibilities.

2. Educate patients, and their families as needed, who are undergoing a surgical procedure about surgical site infection prevention.

3. Implement policies and practices aimed at reducing the risk of surgical site infections. These policies and practices meet regulatory requirements and are aligned with evidence-based guidelines (for example, the Centers for Disease Control and Prevention (CDC) and/or professional organization guidelines).
4. As part of the effort to reduce surgical site infections:
   - Conduct periodic risk assessments for surgical site infections in a time frame determined by the hospital.
   - Select surgical site infection measures using best practices or evidence-based guidelines.
   - Monitor compliance with best practices or evidence-based guidelines.
   - Evaluate the effectiveness of prevention efforts.
   Note: Surveillance may be targeted to certain procedures based on the hospital’s risk assessment.

5. Measure surgical site infection rates for the first 30 or 90 days following surgical procedures based on National Healthcare Safety Network (NHSN) procedural codes. The hospital’s measurement strategies follow evidence-based guidelines. Note 1: Surveillance may be targeted to certain procedures based on the hospital's risk assessment. Note 2: The NHSN is the Centers for Disease Control and Prevention’s health care–associated infection tracking system. NHSN provides facilities, states, regions, and the nation with data needed to identify problem areas, measure progress of prevention efforts, and ultimately eliminate health care–associated infections. For more information on NHSN procedural codes, see http://www.cdc.gov/nhsn/CPTcodes/ssi-cpt.html.

6. Provide process and outcome (for example, surgical site infection rate) measure results to key stakeholders.

7. Administer antimicrobial agents for prophylaxis for a particular procedure or disease according to methods cited in scientific literature or endorsed by professional organizations. * Footnote *: A limited number of National Patient Safety Goals contain requirements for practices that reflect current science and medical knowledge. In these cases, the element of performance refers to a practice that is cited in scientific literature or endorsed by professional organizations. This means that the practice used by the hospital must be validated by an authoritative source. The authoritative source may be a study published in a peer-reviewed journal that clearly demonstrates the efficacy of that practice or endorsement of the practice by a professional organization(s) and/or a government agency(ies). It is not acceptable to follow a practice that is not supported by evidence or wide-spread consensus. During the on-site survey, surveyors will explore the source of the practices the hospital follows.

8. When hair removal is necessary, use a method that is cited in scientific literature or endorsed by professional organizations. * Footnote *: A limited number of National Patient Safety Goals contain requirements for practices that reflect current science and medical knowledge. In these cases, the element of performance refers to a practice that is cited in scientific literature or endorsed by professional organizations. This means that the practice used by the hospital must be validated by an authoritative source. The authoritative source may be a study published in a peer-reviewed journal that clearly demonstrates the efficacy of that practice or endorsement of the practice by a professional organization(s) and/or a government agency(ies). It is not acceptable to follow a practice that is not supported by evidence or wide-spread consensus. During the on-site survey, surveyors will explore the source of the practices the hospital follows.
**NPSG.07.06.01**

Implement evidence-based practices to prevent indwelling catheter-associated urinary tract infections (CAUTI). Note: This NPSG is not applicable to pediatric populations. Research resulting in evidence-based practices was conducted with adults, and there is no consensus that these practices apply to children.

**Elements of Performance for NPSG.07.06.01**

1. Insert indwelling urinary catheters according to established evidence-based guidelines that address the following:
   - Limiting use and duration to situations necessary for patient care
   - Using aseptic techniques for site preparation, equipment, and supplies

2. Manage indwelling urinary catheters according to established evidence-based guidelines that address the following:
   - Securing catheters for unobstructed urine flow and drainage
   - Maintaining the sterility of the urine collection system
   - Replacing the urine collection system when required
   - Collecting urine samples

3. Measure and monitor catheter-associated urinary tract infection prevention processes and outcomes in high-volume areas by doing the following:
   - Selecting measures using evidence-based guidelines or best practices
   - Monitoring compliance with evidence-based guidelines or best practices
   - Evaluating the effectiveness of prevention efforts
   Note: Surveillance may be targeted to areas with a high volume of patients using indwelling catheters. High-volume areas are identified through the hospital’s risk assessment as required in IC.01.03.01, EP 2.

---

**Goal 15**
The hospital identifies safety risks inherent in its patient population.

**NPSG.15.01.01**

Identify patients at risk for suicide.

Note: This requirement applies only to psychiatric hospitals and patients being treated for emotional or behavioral disorders in general hospitals.

---

**Rationale for NPSG.15.01.01**

Suicide of a patient while in a staffed, round-the-clock care setting is a frequently reported type of sentinel event. Identification of individuals at risk for suicide while under the care of or following discharge from a health care organization is an important step in protecting these at-risk individuals.

**Elements of Performance for NPSG.15.01.01**

1. Conduct a risk assessment that identifies specific patient characteristics and environmental features that may increase or decrease the risk for suicide.

2. Address the patient’s immediate safety needs and most appropriate setting for treatment.

3. When a patient at risk for suicide leaves the care of the hospital, provide suicide prevention information (such as a crisis hotline) to the patient and his or her family.
Introduction to the Universal Protocol for Preventing Wrong Site, Wrong Procedure, and Wrong Person Surgery™

The Universal Protocol applies to all surgical and nonsurgical invasive procedures. Evidence indicates that procedures that place the patient at the most risk include those that involve general anesthesia or deep sedation, although other procedures may also affect patient safety. Hospitals can enhance safety by correctly identifying the patient, the appropriate procedure, and the correct site of the procedure.

The Universal Protocol is based on the following principles:

- Wrong-person, wrong-site, and wrong-procedure surgery can and must be prevented.
- A robust approach using multiple, complementary strategies is necessary to achieve the goal of always conducting the correct procedure on the correct person, at the correct site.
- Active involvement and use of effective methods to improve communication among all members of the procedure team are important for success.
- To the extent possible, the patient and, as needed, the family are involved in the process.
- Consistent implementation of a standardized protocol is most effective in achieving safety.

The Universal Protocol is implemented most successfully in hospitals with a culture that promotes teamwork and where all individuals feel empowered to protect patient safety. A hospital should consider its culture when designing processes to meet the Universal Protocol. In some hospitals, it may be necessary to be more prescriptive on certain elements of the Universal Protocol or to create processes that are not specifically addressed within these requirements.

Hospitals should identify the timing and location of the preprocedure verification and site marking based on what works best for their own unique circumstances. The frequency and scope of the preprocedure verification will depend on the type and complexity of the procedure. The three components of the Universal Protocol are not necessarily presented in chronological order (although the preprocedure verification and site marking precede the final verification in the time-out). Preprocedure verification, site marking, and the time-out procedures should be as consistent as possible throughout the hospital.

Note: Site marking is not required when the individual doing the procedure is continuously with the patient from the time of the decision to do the procedure through to the performance of the procedure.

UP.01.01.01
Conduct a preprocedure verification process.

--Rationale for UP.01.01.01--
Hospitals should always make sure that any procedure is what the patient needs and is performed on the right person. The frequency and scope of the verification process will depend on the type and complexity of the procedure.

The preprocedure verification is an ongoing process of information gathering and confirmation. The purpose of the preprocedure verification process is to make sure that all relevant documents and related information or equipment are:

- Available prior to the start of the procedure
- Correctly identified, labeled, and matched to the patient’s identifiers
- Reviewed and are consistent with the patient’s expectations and with the team’s understanding of the intended patient, procedure, and site

Preprocedure verification may occur at more than one time and place before the procedure. It is up to the hospital to decide when this information is collected and by which team member, but it is best to do it when the patient can be involved. Possibilities include the following:

- When the procedure is scheduled
- At the time of preadmission testing and assessment
- At the time of admission or entry into the facility for a procedure
- Before the patient leaves the preprocedure area or enters the procedure room

Missing information or discrepancies are addressed before starting the procedure.
Introduction to UP.01.02.01

Wrong site surgery should never happen. Yet it is an ongoing problem in health care that compromises patient safety. Marking the procedure site is one way to protect patients; patient safety is enhanced when a consistent marking process is used throughout the hospital. Site marking is done to prevent errors when there is more than one possible location for a procedure. Examples include different limbs, fingers and toes, lesions, level of the spine, and organs. In cases where bilateral structures are removed (such as tonsils or ovaries) the site does not need to be marked.

Responsibility for marking the procedure site is a hotly debated topic. One position is that since the licensed independent practitioner is accountable for the procedure, he or she should mark the site. Another position is that other individuals should be able to mark the site in the interests of work flow and efficiency.

There is no evidence that patient safety is affected by the job function of the individual who marks the site. The incidence of wrong-site surgery is low enough that it is unlikely that valid data on this subject will ever be available. Furthermore, there is no clear consensus in the field on who should mark the site. Rather than remaining silent on the subject of site marking, The Joint Commission sought a solution that supports the purpose of the site mark. The mark is a communication tool about the patient for members of the team. Therefore, the individual who knows the most about the patient should mark the site. In most cases, that will be the person performing the procedure.

Recognizing the complexities of the work processes supporting invasive procedures, The Joint Commission believes that delegation of site marking to another individual is acceptable in limited situations as long as the individual is familiar with the patient and involved in the procedure. These include:

- Individuals who are permitted through a postgraduate education program to participate in the procedure
- A licensed individual who performs duties requiring collaborative or supervisory agreements with a licensed independent practitioner. These individuals include advanced practice registered nurses (APRNs) and physician assistants (PAs).

The licensed independent practitioner remains fully accountable for all aspects of the procedure even when site marking is delegated.

© 2016 Joint Commission Resources
## UP.01.02.01
Mark the procedure site.

### Elements of Performance for UP.01.02.01

1. Identify those procedures that require marking of the incision or insertion site. At a minimum, sites are marked when there is more than one possible location for the procedure and when performing the procedure in a different location would negatively affect quality or safety. Note: For spinal procedures, in addition to preoperative skin marking of the general spinal region, special intraoperative imaging techniques may be used for locating and marking the exact vertebral level.

2. Mark the procedure site before the procedure is performed and, if possible, with the patient involved.

3. The procedure site is marked by a licensed independent practitioner who is ultimately accountable for the procedure and will be present when the procedure is performed. In limited circumstances, the licensed independent practitioner may delegate site marking to an individual who is permitted by the organization to participate in the procedure and has the following qualifications:
   - An individual in a medical postgraduate education program who is being supervised by the licensed independent practitioner performing the procedure; who is familiar with the patient; and who will be present when the procedure is performed
   - A licensed individual who performs duties requiring a collaborative agreement or supervisory agreement with the licensed independent practitioner performing the procedure (that is, an advanced practice registered nurse [APRN] or physician assistant [PA]); who is familiar with the patient; and who will be present when the procedure is performed.
   Note: The hospital's leaders define the limited circumstances (if any) in which site marking may be delegated to an individual meeting these qualifications.

4. The method of marking the site and the type of mark is unambiguous and is used consistently throughout the hospital. Note: The mark is made at or near the procedure site and is sufficiently permanent to be visible after skin preparation and draping. Adhesive markers are not the sole means of marking the site.

5. A written, alternative process is in place for patients who refuse site marking or when it is technically or anatomically impossible or impractical to mark the site (for example, mucosal surfaces or perineum).
   Note: Examples of other situations that involve alternative processes include:
   - Minimal access procedures treating a lateraled internal organ, whether percutaneous or through a natural orifice
   - Teeth
   - Premature infants, for whom the mark may cause a permanent tattoo
UP.01.03.01
A time-out is performed before the procedure.

--Rationale for UP.01.03.01--
The purpose of the time-out is to conduct a final assessment that the correct patient, site, and procedure are identified. This requirement focuses on those minimum features of the time-out. Some believe that it is important to conduct the time-out before anesthesia for several reasons, including involvement of the patient. A hospital may conduct the time-out before anesthesia or may add another time-out at that time. During a time-out, activities are suspended to the extent possible so that team members can focus on active confirmation of the patient, site, and procedure.

A designated member of the team initiates the time-out and it includes active communication among all relevant members of the procedure team. The procedure is not started until all questions or concerns are resolved. The timeout is most effective when it is conducted consistently across the hospital.

Elements of Performance for UP.01.03.01

1. Conduct a time-out immediately before starting the invasive procedure or making the incision.  
   - R A 3

2. The time-out has the following characteristics:
   - It is standardized, as defined by the hospital.
   - It is initiated by a designated member of the team.
   - It involves the immediate members of the procedure team, including the individual performing the procedure, the anesthesia providers, the circulating nurse, the operating room technician, and other active participants who will be participating in the procedure from the beginning.
   - R A

3. When two or more procedures are being performed on the same patient, and the person performing the procedure changes, perform a time-out before each procedure is initiated.
   - R A 3

4. During the time-out, the team members agree, at a minimum, on the following:
   - Correct patient identity
   - The correct site
   - The procedure to be done
   - R A 3

5. Document the completion of the time-out.
   Note: The hospital determines the amount and type of documentation.
   - R A M 3
### National Patient Safety Goal Self-Assessment

#### National Patient Safety Goal 1: Improve the accuracy of patient identification.

**NPSG.01.01.01: Use at least two patient identifiers when providing care, treatment, and services.**

<table>
<thead>
<tr>
<th>EP</th>
<th>Requirement</th>
<th>Applies to:</th>
<th>In compliance?</th>
<th>Actions Taken</th>
<th>Results of Actions Taken</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Use at least two patient identifiers when administering medications, blood, or blood components; when collecting blood samples and other specimens for clinical testing; and when providing treatments or procedures. The patient’s room number or physical location is not used as an identifier.</td>
<td>AHC, BHC, CAH, OME, HAP, LAB, NCC, OBS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Label containers used for blood and other specimens in the presence of the patient.</td>
<td>AHC, BHC, CAH, OME, HAP, LAB, NCC, OBS</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### NPSG.01.03.01: Eliminate transfusion errors related to patient misidentification.

<table>
<thead>
<tr>
<th>EP</th>
<th>Requirement</th>
<th>Applies to:</th>
<th>In compliance?</th>
<th>Actions Taken</th>
<th>Results of Actions Taken</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Before initiating a blood or blood component transfusion:</td>
<td>AHC, CAH, HAP, OBS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Match the blood or blood component to the order.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Match the patient to the blood or blood component.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Use a two-person verification process or a one-person verification process accompanied by automated identification technology, such as bar coding.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>When using a two-person verification process, one individual conducting the identification verification is the qualified transfusionist who will administer the blood or blood component to the patient.</td>
<td>AHC, CAH, HAP, OBS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>When using a two-person verification process, the second individual conducting the identification verification is qualified to participate in the process as determined by the organization.</td>
<td>AHC, CAH, HAP, OBS</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Key:** AHC: Ambulatory Health Care, BHC: Behavioral Health Care, CAH: Critical Access Hospital, HAP: Hospital, NCC: Nursing Care Center, OME: Home Care, LAB: Laboratory, OBS: Office-Based Surgery.

Standards are effective January 1, 2015. See your *Comprehensive Accreditation Manual* for scoring information, rationales, additional applicability information, documentation requirements, and program-specific notes.
### National Patient Safety Goal 2: Improve the effectiveness of communication among caregivers.

**NPSG.02.03.01:** Report critical results of tests and diagnostic procedures on a timely basis.

<table>
<thead>
<tr>
<th>EP</th>
<th>Requirement</th>
<th>Applies to:</th>
<th>In compliance?</th>
<th>Actions Taken</th>
<th>Results of Actions Taken</th>
</tr>
</thead>
</table>
| 1  | Develop written procedures for managing the critical results of tests and diagnostic procedures that address the following:  
• The definition of critical results of tests and diagnostic procedures  
• By whom and to whom critical results of tests and diagnostic procedures are reported  
• The acceptable length of time between the availability and reporting of critical results of tests and diagnostic procedures | CAH, HAP, LAB | | | |
| 2  | Implement the procedures for managing the critical results of tests and diagnostic procedures. | CAH, HAP, LAB | | | |
| 3  | Evaluate the timeliness of reporting the critical results of tests and diagnostic procedures. | CAH, HAP, LAB | | | |

### National Patient Safety Goal 3: Improve the safety of using medications.

**NPSG.03.04.01:** Label all medications, medication containers, and other solutions on and off the sterile field in perioperative and other procedural settings.

<table>
<thead>
<tr>
<th>EP</th>
<th>Requirement</th>
<th>Applies to:</th>
<th>In compliance?</th>
<th>Actions Taken</th>
<th>Results of Actions Taken</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>In perioperative and other procedural settings both on and off the sterile field, label medications and solutions that are not immediately administered. This applies even if there is only one medication being used.</td>
<td>AHC, CAH, HAP, OBS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>In perioperative and other procedural settings both on and off the sterile field, labeling occurs when any medication or solution is transferred from the original packaging to another container.</td>
<td>AHC, CAH, HAP, OBS</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3. In perioperative and other procedural settings both on and off the sterile field, medication or solution labels include the following:
   - Medication or solution name
   - Strength
   - Amount of medication or solution containing medication (if not apparent from the container)
   - Diluent name and volume (if not apparent from the container)
   - Expiration date when not used within 24 hours
   - Expiration time when expiration occurs in less than 24 hours

4. Verify all medication or solution labels both verbally and visually. Verification is done by two individuals qualified to participate in the procedure whenever the person preparing the medication or solution is not the person who will be administering it.

5. Label each medication or solution as soon as it is prepared, unless it is immediately administered.

6. Immediately discard any medication or solution found unlabeled.

7. Remove all labeled containers on the sterile field and discard their contents at the conclusion of the procedure.

8. All medications and solutions both on and off the sterile field and their labels are reviewed by entering and exiting staff responsible for the management of medications.

| NPSG.03.05.01: Reduce the likelihood of patient harm associated with the use of anticoagulant therapy. |

<table>
<thead>
<tr>
<th>EP</th>
<th>Requirement</th>
<th>Applies to:</th>
<th>In compliance?</th>
<th>Actions Taken</th>
<th>Results of Actions Taken</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Use only oral unit-dose products, prefilled syringes, or premixed infusion bags when these types of products are available.</td>
<td>AHC, CAH, HAP, NCC</td>
<td>In compliance?</td>
<td>Actions Taken</td>
<td>Results of Actions Taken</td>
</tr>
<tr>
<td>2</td>
<td>Use approved protocols for the initiation and maintenance of anticoagulant therapy.</td>
<td>AHC, CAH, HAP, NCC</td>
<td>In compliance?</td>
<td>Actions Taken</td>
<td>Results of Actions Taken</td>
</tr>
</tbody>
</table>
3. Before starting a patient on warfarin, assess the patient’s baseline coagulation status; for all patients receiving warfarin therapy, use a current International Normalized Ratio (INR) to adjust this therapy. The baseline status and current INR are documented in the medical record.

4. Use authoritative resources to manage potential food and drug interactions for patients receiving warfarin.

5. When heparin is administered intravenously and continuously, use programmable pumps in order to provide consistent and accurate dosing.

6. A written policy addresses baseline and ongoing laboratory tests that are required for anticoagulants.

7. Provide education regarding anticoagulant therapy to prescribers, staff, patients, and families. Patient/family education includes the following:
   - The importance of follow-up monitoring
   - Compliance
   - Drug-food interactions
   - The potential for adverse drug reactions and interactions

8. Evaluate anticoagulation safety practices, take action to improve practices, and measure the effectiveness of those actions in a time frame determined by the organization.

**NPSG.03.06.01: Maintain and communicate accurate patient medication information.**

<table>
<thead>
<tr>
<th>EP</th>
<th>Requirement</th>
<th>Applies to:</th>
<th>In compliance?</th>
<th>Actions Taken</th>
<th>Results of Actions Taken</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Obtain information on the medications the patient is currently taking when he or she is admitted to the organization or is seen in an outpatient setting. This information is documented in a list or other format that is useful to those who manage medications.</td>
<td>AHC, BHC, CAH, HAP, OME, NCC, OBS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Define the types of medication information to be collected in non-24-hour settings and different patient circumstances.</td>
<td>AHC, BHC, CAH, HAP, OME, NCC, OBS</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3. Compare the medication information the patient brought to the organization with the medications ordered for the patient by the organization in order to identify and resolve discrepancies.

4. Provide the patient (or family as needed) with written information on the medications the patient should be taking when he or she is discharged from the hospital or at the end of an outpatient encounter (for example, name, dose, route, frequency, purpose).

5. Explain the importance of managing medication information to the patient when he or she is discharged from the hospital or at the end of an outpatient encounter.

---

**National Patient Safety Goal 6: Reduce the harm associated with clinical alarm systems.**

NPSG.06.01.01: Improve the safety of clinical alarm systems.

<table>
<thead>
<tr>
<th>EP</th>
<th>Requirement</th>
<th>Applies to:</th>
<th>In compliance?</th>
<th>Actions Taken</th>
<th>Results of Actions Taken</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Leaders establish alarm system safety as a hospital priority.</td>
<td>CAH, HAP</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| 2  | Identify the most important alarm signals to manage based on the following:  
- Input from the medical staff and clinical departments  
- Risk to patients if the alarm signal is not attended to or if it malfunctions  
- Whether specific alarm signals are needed or unnecessarily contribute to alarm noise and alarm fatigue  
- Potential for patient harm based on internal incident history  
- Published best practices and guidelines | CAH, HAP | | | |
3. As of January 1, 2016, establish policies and procedures for managing the alarms identified in EP 2 above that, at a minimum, address the following:
   - Clinically appropriate settings for alarm signals
   - When alarm signals can be disabled
   - When alarm parameters can be changed
   - Who in the organization has the authority to set alarm parameters
   - Who in the organization has the authority to change alarm parameters
   - Who in the organization has the authority to set alarm parameters to “off”
   - Monitoring and responding to alarm signals
   - Checking individual alarm signals for accurate settings, proper operation, and detectability

4. As of January 1, 2016, educate staff and licensed independent practitioners about the purpose and proper operation of alarm systems for which they are responsible.

**National Patient Safety Goal 7: Reduce the risk of health care-associated infections.**

**NPSG.07.01.01:** Comply with either the current Centers for Disease Control and Prevention (CDC) hand hygiene guidelines or the current World Health Organization (WHO) hand hygiene guidelines.

<table>
<thead>
<tr>
<th>EP</th>
<th>Requirement</th>
<th>Applies to:</th>
<th>In compliance?</th>
<th>Actions Taken</th>
<th>Results of Actions Taken</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Implement a program that follows categories IA, IB, and IC of either the current Centers for Disease Control and Prevention (CDC) or the current World Health Organization (WHO) hand hygiene guidelines.</td>
<td>AHC, BHC, CAH, HAP, LAB, NCC, OBS, OME</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Set goals for improving compliance with hand hygiene guidelines.</td>
<td>AHC, BHC, CAH, OME, HAP, LAB, NCC, OBS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Improve compliance with hand hygiene guidelines based on established goals.</td>
<td>AHC, BHC, CAH, HAP, LAB, NCC, OBS, OME</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### NPSG.07.03.01: Implement evidence-based practices to prevent health care-associated infections due to multidrug-resistant organisms in acute care hospitals.

<table>
<thead>
<tr>
<th>EP</th>
<th>Requirement</th>
<th>Applies to:</th>
<th>In compliance?</th>
<th>Actions Taken</th>
<th>Results of Actions Taken</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Conduct periodic risk assessments (in time frames defined by the hospital) for multidrug-resistant organism acquisition and transmission.</td>
<td>CAH, HAP</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Based on the results of the risk assessment, educate staff and licensed independent practitioners about health care–associated infections, multidrug-resistant organisms, and prevention strategies at hire and annually thereafter.</td>
<td>CAH, HAP</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Educate patients, and their families as needed, who are infected or colonized with a multidrug-resistant organism about health care–associated infection. prevention strategies.</td>
<td>CAH, HAP</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Implement a surveillance program for multidrug-resistant organisms based on the risk assessment.</td>
<td>CAH, HAP</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| 5  | Measure and monitor multidrug-resistant organism prevention processes and outcomes, including the following:  
   - Multidrug-resistant organism infection rates using evidence-based metrics  
   - Compliance with evidence-based guidelines or best practices  
   - Evaluation of the education program provided to staff and licensed independent practitioners | CAH, HAP |                |               |                          |
| 6  | Provide multidrug-resistant organism process and outcome data to key stakeholders, including leaders, licensed independent practitioners, nursing staff, and other clinicians. | CAH, HAP |                |               |                          |
| 7  | Implement policies and practices aimed at reducing the risk of transmitting multidrug-resistant organisms. These policies and practices meet regulatory requirements and are aligned with evidence-based standards (for example, the Centers for Disease Control and Prevention (CDC) and/or professional organization guidelines). | CAH, HAP |                |               |                          |
| 8  | When indicated by the risk assessment, implement a laboratory-based alert system that identifies new patients with multidrug-resistant organisms. | CAH, HAP |                |               |                          |
When indicated by the risk assessment, implement an alert system that identifies readmitted or transferred patients who are known to be positive for multidrug-resistant organisms.

**NPSG.07.04.01: Implement evidence-based practices to prevent central line-associated bloodstream infections.**

<table>
<thead>
<tr>
<th>EP</th>
<th>Requirement</th>
<th>Applies to</th>
<th>In compliance?</th>
<th>Actions Taken</th>
<th>Results of Actions Taken</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Educate staff and licensed independent practitioners who are involved in managing central lines about central line–associated bloodstream infections and the importance of prevention. Education occurs upon hire, annually thereafter, and when involvement in these procedures is added to an individual’s job responsibilities.</td>
<td>CAH, HAP, NCC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Prior to insertion of a central venous catheter, educate patients and, as needed, their families about central line-associated bloodstream infection prevention.</td>
<td>CAH, HAP, NCC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Implement policies and practices aimed at reducing the risk of central line-associated bloodstream infections. These policies and practices meet regulatory requirements and are aligned with evidence-based standards (for example, the Centers for Disease Control and Prevention (CDC) and/or professional organization guidelines).</td>
<td>CAH, HAP, NCC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Conduct periodic risk assessments for central line-associated bloodstream infections, monitor compliance with evidence-based practices, and evaluate the effectiveness of prevention efforts. The risk assessments are conducted in time frames defined by the organization, and this infection surveillance activity is organizationwide, not targeted.</td>
<td>CAH, HAP, NCC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Provide central line-associated bloodstream infection rate data and prevention outcome measures to key stakeholders, including leaders, licensed independent practitioners, nursing staff, and other clinicians.</td>
<td>CAH, HAP, NCC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Use a catheter checklist and a standardized protocol for central venous catheter insertion.</td>
<td>CAH, HAP, NCC</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Perform hand hygiene prior to catheter insertion or manipulation.

For adult patients, do not insert catheters into the femoral vein unless other sites are unavailable.

Use a standardized supply cart or kit that contains all necessary components for the insertion of central venous catheters.

Use a standardized protocol for sterile barrier precautions during central venous catheter insertion.

Use an antiseptic for skin preparation during central venous catheter insertion that is cited in scientific literature or endorsed by professional organizations.

Use a standardized protocol to disinfect catheter hubs and injection ports before accessing the ports.

Evaluate all central venous catheters routinely and remove nonessential catheters.

**NPSP.07.05.01:** Implement evidence-based practices for preventing surgical site infections.

<table>
<thead>
<tr>
<th>EP</th>
<th>Requirement</th>
<th>Applies to:</th>
<th>In compliance?</th>
<th>Actions Taken</th>
<th>Results of Actions Taken</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Educate staff and licensed independent practitioners involved in surgical procedures about surgical site infections and the importance of prevention. Education occurs upon hire, annually thereafter, and when involvement in surgical procedures is added to an individual’s job responsibilities.</td>
<td>AHC, CAH, HAP, OBS</td>
<td>AHC, CAH, HAP, OBS</td>
<td>AHC, CAH, HAP, OBS</td>
<td>AHC, CAH, HAP, OBS</td>
</tr>
<tr>
<td>2</td>
<td>Educate patients, and their families as needed, who are undergoing a surgical procedure about surgical site infection prevention.</td>
<td>AHC, CAH, HAP, OBS</td>
<td>AHC, CAH, HAP, OBS</td>
<td>AHC, CAH, HAP, OBS</td>
<td>AHC, CAH, HAP, OBS</td>
</tr>
<tr>
<td>3</td>
<td>Implement policies and practices aimed at reducing the risk of surgical site infections. These policies and practices meet regulatory requirements and are aligned with evidence-based guidelines (for example, the Centers for Disease Control and Prevention (CDC) and/or professional organization guidelines).</td>
<td>AHC, CAH, HAP, OBS</td>
<td>AHC, CAH, HAP, OBS</td>
<td>AHC, CAH, HAP, OBS</td>
<td>AHC, CAH, HAP, OBS</td>
</tr>
<tr>
<td>EP</td>
<td>Requirement</td>
<td>Applies to:</td>
<td>In compliance?</td>
<td>Actions Taken</td>
<td>Results of Actions Taken</td>
</tr>
<tr>
<td>----</td>
<td>-------------</td>
<td>-------------</td>
<td>----------------</td>
<td>---------------</td>
<td>--------------------------</td>
</tr>
</tbody>
</table>
| 4  | As part of the effort to reduce surgical site infections:  
• Conduct periodic risk assessments for surgical site infections in a time frame determined by the organization.  
• Select surgical site infection measures using best practices or evidence-based guidelines.  
• Monitor compliance with best practices or evidence-based guidelines.  
• Evaluate the effectiveness of prevention efforts. | AHC, CAH, HAP, OBS |            |               |                          |
| 5  | Measure surgical site infection rates for the first 30 or 90 days following surgical procedures based on National Healthcare Safety Network (NHSN) procedural codes. The organization’s measurement strategies follow evidence-based guidelines. | AHC, CAH, HAP, OBS |            |               |                          |
| 6  | Provide process and outcome (for example, surgical site infection rate) measure results to key stakeholders. | AHC, CAH, HAP, OBS |            |               |                          |
| 7  | Administer antimicrobial agents for prophylaxis for a particular procedure or disease according to methods cited in scientific literature or endorsed by professional organizations. | AHC, CAH, HAP, OBS |            |               |                          |
| 8  | When hair removal is necessary, use a method that is cited in scientific literature or endorsed by professional organizations. | AHC, CAH, HAP, OBS |            |               |                          |

**NPSG.07.06.01: Implement evidence-based practices to prevent indwelling catheter-associated urinary tract infections (CAUTI).**
2. Manage indwelling urinary catheters according to established evidence-based guidelines that address the following:
   - Securing catheters for unobstructed urine flow and drainage
   - Maintaining the sterility of the urine collection system
   - Replacing the urine collection system when required
   - Collecting urine samples

3. Measure and monitor catheter-associated urinary tract infection prevention processes and outcomes in high-volume areas by doing the following:
   - Selecting measures using evidence-based guidelines or best practices
   - Monitoring compliance with evidence-based guidelines or best practices
   - Evaluating the effectiveness of prevention efforts

### National Patient Safety Goal 9: Reduce the risk of patient harm resulting from falls.

**NPSG.09.02.01:** Reduce the risk of falls.

<table>
<thead>
<tr>
<th>EP</th>
<th>Requirement</th>
<th>Applies to:</th>
<th>In compliance?</th>
<th>Actions Taken</th>
<th>Results of Actions Taken</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Assess the patient’s risk for falls.</td>
<td>NCC, OME</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Implement interventions to reduce falls based on the patient’s assessed risk.</td>
<td>NCC, OME</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Educate staff on the fall reduction program in time frames determined by the organization.</td>
<td>NCC, OME</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Educate the patient and, as needed, the family on any individualized fall reduction strategies.</td>
<td>NCC, OME</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Evaluate the effectiveness of all fall reduction activities, including assessment, interventions, and education.</td>
<td>NCC, OME</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### National Patient Safety Goal 14: Prevent health care–associated pressure ulcers (decubitus ulcers).

**NPSG.14.01.01:** Assess and periodically reassess each patient’s and resident’s risk for developing a pressure ulcer and take action to address any identified risks.

<table>
<thead>
<tr>
<th>EP</th>
<th>Requirement</th>
<th>Applies to:</th>
<th>In compliance?</th>
<th>Actions Taken</th>
<th>Results of Actions Taken</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Create a written plan for the identification of risk for and prevention of pressure ulcers.</td>
<td>NCC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Perform an initial assessment at admission to identify patients and residents at risk for pressure ulcers.</td>
<td>NCC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Conduct a systematic risk assessment for pressure ulcers using a validated risk assessment tool such as the Braden Scale or Norton Scale.</td>
<td>NCC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---------------------------------------------------------------------------------------------------------------------------------</td>
<td>-----</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Reassess pressure ulcer risk at intervals defined by the organization.</td>
<td>NCC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Take action to address any identified risks to the patient or resident for pressure ulcers, including the following: • Preventing injury to patients and residents by maintaining and improving tissue tolerance to pressure in order to prevent injury • Protecting against the adverse effects of external mechanical forces</td>
<td>NCC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Educate staff on how to identify risk for and prevent pressure ulcers.</td>
<td>NCC</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**National Patient Safety Goal 15: The organization identifies safety risks inherent in its patient population.**

**NPSG.15.01.01: Identify patients at risk for suicide.**

<table>
<thead>
<tr>
<th>EP</th>
<th>Requirement</th>
<th>Applies to:</th>
<th>In compliance?</th>
<th>Actions Taken</th>
<th>Results of Actions Taken</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Conduct a risk assessment that identifies specific patient characteristics and environmental features that may increase or decrease the risk for suicide.</td>
<td>BHC, HAP</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Address the patient’s immediate safety needs and most appropriate setting for treatment.</td>
<td>BHC, HAP</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>When a patient at risk for suicide leaves the care of the organization, provide suicide prevention information (such as a crisis hotline) to the patient and his or her family.</td>
<td>BHC, HAP</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### NPSG.15.02.01: Identify risks associated with home oxygen therapy such as home fires.

<table>
<thead>
<tr>
<th>EP</th>
<th>Requirement</th>
<th>Applies to</th>
<th>In compliance?</th>
<th>Actions Taken</th>
<th>Results of Actions Taken</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Conduct a home oxygen safety risk assessment before starting oxygen therapy in the home and when home care services are initiated that addresses at least the following:  - Whether there are smoking materials in the home  - Whether or not the home has functioning smoke detectors  - Whether there are other fire safety risks in the home, such as the potential for open flames  Document the performance of the risk assessment.</td>
<td>OME</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Reevaluate potential fire risks at intervals established by the organization. Evidence of unsafe practices leading to potential risk is used to establish these intervals. Document the reevaluation of potential fire risks.</td>
<td>OME</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Inform and educate the patient, family, and/or caregiver about the following:  - The findings of the safety risk assessment  - The causes of fire  - Fire risks for neighboring residences and buildings  - Precautions that can prevent fire-related injuries  - Recommendations to address the specific identified risk(s)  Document the provision of information and education.</td>
<td>OME</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Assess the patient’s, family’s, and/or caregiver’s level of comprehension of identified risks and compliance with suggested interventions during home visits. Document this assessment.</td>
<td>OME</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Implement strategies to improve patient and/or family compliance with oxygen safety precautions when unsafe practices are observed in the home. This includes notifying the licensed independent practitioner ordering the oxygen. Document the implementation of strategies to address compliance.</td>
<td>OME</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# Universal Protocol for Preventing Wrong Site, Wrong Procedure, and Wrong Person Surgery™

## UP.01.01.01: Conduct a preprocedure verification process.

<table>
<thead>
<tr>
<th>EP</th>
<th>Requirement</th>
<th>Applies to:</th>
<th>In compliance?</th>
<th>Actions Taken</th>
<th>Results of Actions Taken</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Implement a preprocedure process to verify the correct procedure, for the correct patient, at the correct site.</td>
<td>AHC, CAH, HAP, OBS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Identify the items that must be available for the procedure and use a standardized list to verify their availability. At a minimum, these items include the following:</td>
<td>AHC, CAH, HAP, OBS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Relevant documentation (for example, history and physical, signed procedure consent form, nursing assessment, and preanesthesia assessment)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Labeled diagnostic and radiology test results (for example, radiology images and scans, or pathology and biopsy reports) that are properly displayed</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Any required blood products, implants, devices, and/or special equipment for the procedures</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Match the items that are to be available in the procedure area to the patient.</td>
<td>AHC, CAH, HAP, OBS</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## UP.01.02.01: Mark the procedure site.

<table>
<thead>
<tr>
<th>EP</th>
<th>Requirement</th>
<th>Applies to:</th>
<th>In compliance?</th>
<th>Actions Taken</th>
<th>Results of Actions Taken</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Identify those procedures that require marking of the incision or insertion site. At a minimum, sites are marked when there is more than one possible location for the procedure and when performing the procedure in a different location would negatively affect quality or safety.</td>
<td>AHC, CAH, HAP, OBS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Mark the procedure site before the procedure is performed and, if possible, with the patient involved.</td>
<td>AHC, CAH, HAP, OBS</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3 The procedure site is marked by a licensed independent practitioner who is ultimately accountable for the procedure and will be present when the procedure is performed. In limited circumstances, the licensed independent practitioner may delegate site marking to an individual who is permitted by the organization to participate in the procedure and has the following qualifications:
- An individual in a medical postgraduate education program who is being supervised by the licensed independent practitioner performing the procedure; who is familiar with the patient; and who will be present when the procedure is performed
- A licensed individual who performs duties requiring a collaborative agreement or supervisory agreement with the licensed independent practitioner performing the procedure (that is, an advanced practice registered nurse [APRN] or physician assistant [PA]); who is familiar with the patient; and who will be present when the procedure is performed.

4 The method of marking the site and the type of mark is unambiguous and is used consistently throughout the organization.

5 A written, alternative process is in place for patients who refuse site marking or when it is technically or anatomically impossible or impractical to mark the site (for example, mucosal surfaces or perineum).

### UP.01.03.01: A time-out is performed before the procedure.

<table>
<thead>
<tr>
<th>EP</th>
<th>Requirement</th>
<th>Applies to:</th>
<th>In compliance?</th>
<th>Actions Taken</th>
<th>Results of Actions Taken</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Conduct a time-out immediately before starting the invasive procedure or making the incision.</td>
<td>AHC, CAH, HAP, OBS</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
2. The time-out has the following characteristics:
   - It is standardized, as defined by the organization.
   - It is initiated by a designated member of the team.
   - It involves the immediate members of the procedure team, including the individual performing the procedure, the anesthesia providers, the circulating nurse, the operating room technician, and other active participants who will be participating in the procedure from the beginning.

3. When two or more procedures are being performed on the same patient, and the person performing the procedure changes, perform a time-out before each procedure is initiated.

4. During the time-out, the team members agree, at a minimum, on the following:
   - Correct patient identity
   - The correct site
   - The procedure to be done

5. Document the completion of the time-out.
Lessons in Alarm Safety from Uncle Sam

What health care organizations can learn from military alarm management strategies

Deep within a naval warship is a military combat information center that utilizes both human and computer-based intelligence to understand its surroundings and identify nearby objects; decide whether they are friendly, neutral, or hostile; and determine whether they require a response. These steps must be done in real time so that only necessary action is taken. Making inaccurate decisions or turning a deaf ear to alarms can have life-or-death consequences.

This decision-making process is far from easy. Combat information center operators stare at complex screens, scrutinizing every movement in the outside waters. Concurrently, buzzing alarms alert personnel to any recognized and pre-decided pattern of change. Deciphering the importance of each alarm type is crucial and must be done simultaneously by operators.

The military recognized years ago that, while automated notification systems provide constant warnings, they do not necessarily result in the recognition needed by operations personnel. Research has shown that people have cognitive limitations that affect their ability to cope with alert-based interruptions. Consequently, individual decision quality is significantly reduced.

For the military, dealing with risks associated with human error and alarm management led to a new alarm management solution: the use of software that helps maximize human performance, regardless of the type or multitude of alarm interruptions. Interactive software provides “negotiation-based coordination” services that empower operators to quickly understand the importance of every alarm relative to the current situation and triage their own attention to focus on what is most important.

Playing defense in the health care setting

In the health care setting, as on a warship, alarm management response can have life-or-death repercussions. Frontline workers are expected to appropriately respond to alarms that are frequently triggered. For a nurse working a 12-plus-hour shift, these alarms eventually may fade into background noise; even when they are recognized, most alarms give no direct actionable information that provides immediate support for decision-making.

Daniel McFarlane, ScD, of Lockheed Martin’s Advanced Technology Laboratory in Arlington, Virginia, understands this scenario well. With over 25 years invested in the study of how people manage and focus their attention to make decisions, he sees an opportunity to learn from defense-related research and practices to change how hospital systems manage alarms and, ultimately, save lives.

Collaborating with the Association for the Advancement of Medical Instrumentation (AAMI), McFarlane made site visits to hospital and clinical care settings—including Johns Hopkins Medical Center in Baltimore; Massachusetts General Hospital in Boston; Davita outpatient clinics; Palomar Medical Center in Escondido, California; and Cedars-Sinai Hospital in Los Angeles—and participated in standards workshops to learn more about current hospital-based efforts and best practices in alarm management. He reviewed how these health care settings managed alarms and examined everything from cardiac and neonatal hospital units to outpatient dialysis units. He discovered that the approaches being used across inpatient and outpatient settings continued to present repetitive challenges—including ignored alarm signals, lengthy practitioner response rates to the alarms, and provider confusion over the importance of the alarms.

It dawned on McFarlane that military-type solutions could provide hospitals a similar level of support. However, to implement these solutions in the health care sector would require a shift in the mind-set of care providers and a change in how devices ultimately work.

McFarlane approached the task of helping to advise on alarm management with the following two primary questions in mind:

1. What do health care workers need to know?
2. When do they need to know it to make a good decision?

Next, he focused on the following two specific efforts:

1. Identifying which patient a nurse should be attending to now.
2. Determining what actions a nurse must take at this time.

Alarming observations

McFarlane observed several limitations in how medical devices function when producing alarms, including the following:

- Alarm configuration settings on devices are limited to simple ranges, and most clinicians tend to rely on factory-default alarm settings rather than make adjustments.
- Alarm signals do not include sufficient metadata about the nature of the alarm to help a nurse determine its importance.
• There is no cross-device integration: Devices do not “talk” to each other.
• Alarms on devices connected to a patient are not connected to clinical information systems that can provide specific medical information a nurse can access when considering the reason for a patient alarm.

As a result of these limitations, nurses largely do not trust that alarms are valid or useful and stop relying on the systems and their notifications. The result is a slower patient alarm review time, which at times has dire consequences for patients.

(See the sidebar at right for a list of common problems identified and suggested solutions.)

Military intervention

McFarlane considered how logic applied in the military setting could be applied in the hospital setting and what it would take to get there. He began to see distinct behavioral variances between the military warship setting and the hospital/clinical setting concerning alarm management. For example, unlike a military command officer who observes a computer screen full of remote unseen objects and relies on alarms to sound off concerns that must be analyzed, a nurse walks into a command post “armed” with more intelligence about the targets (patients) in question. A nurse has the benefit of patient medical charts and background information to help distinguish patients from one another. Both the nurse and military command officer, however, lack definitive information on the true status of what the alarms represent when they sound.

Moreover, a warship allows for stationary work, while a hospital requires mobile work. Military operators are focused only on observing the screen, images, and alarm. But nurses and other health professionals are moving around a facility nonstop and are focused on managing multiple patient-related tasks simultaneously.

“Existing hospital alarm systems are not targeted at helping the care provider—the nurse—on the front lines who has direct patient care decision-making responsibilities,” says McFarlane. “Current alarm systems don’t even allow nurses to get to the meta-level task of understanding which patient they should be attending to first.”

McFarlane further observed that medical devices provide an audio or visual sign that a potential problem exists but don’t directly provide any other information that nurses can use to prioritize their responses. Some nurses are provided pagers or other mobile devices as secondary notification that a patient alarm signal has been made, but pager notification systems provide no other direct, actionable intelligence to aid in decision making.

“The lack of actionable intelligence from alarm signals makes it impossible for nurses to effectively triage their multitasking among multiple patients,” says McFarlane. “The testing of new medical alarm designs seems to be often focused on whether it affects patient mortality rates. A more useful metric would be, ‘do these alarm designs provide a nurse the information needed to make a good decision about when to provide what care to patients?’”

To address this issue, McFarlane believes it would be beneficial to include nurses as stakeholders to help guide alarm safety research and development (R&D) and that

---

ammable and Dangerous

Three main problems face clinical alarm designers and users. Following are suggested solutions and methods from Daniel McFarlane, ScD, of Lockheed Martin’s Advanced Technology Laboratory in Arlington, Virginia.

Problem 1: The design of current alarm signal delivery is not focused on helping nurses triage time across multiple patients.

Proposed solution: Hospitals need to advise device manufacturers and the standards development organizations that specify device behavior that devices need to be designed to provide content to assist nurse decision making and multitasking.

Proposed solution method: Design a new research method for evaluating a medical device for how it helps frontline workers and then test it in a real-world setting so that nurses can determine what works for them.

Problem 2: Many medical devices are built by a number of different vendors and cannot talk to each other.

Proposed solution: Establish standard interfaces for medical devices that facilitate integration.

Proposed solution method: Consider a new model for provisioning hospitals by buying hospital “systems” from an integrator. The integrator would have sufficient market power to motivate vendors to conform to interface standards.

Problem 3: Nurses are mobile and medical devices are fairly stationary.

Proposed solution: Get the medical device user interface to where the provider is located.

Proposed solution method: Use current technological resources to deliver intelligent information on medical device alarms through smartphones or other technological applications.
identifying ways to help nurses improve their time spent triaging would result in improved care for all patients. R&D teams should seek to “walk in a nurse’s shoes” and understand that nurses are typically assigned to six or more patients at the same time, all in different rooms, McFarlane adds. Also, the limitations of a nurse’s current work environment must be recognized and new mechanisms that address nurses’ needs, given the mobility of their practice, should be established.

“Current alarm generation functions do not align with the multitasking needed to triage attention across multiple patients. Instead, each alarm feature considers only local conditions on separate sensors on separate instruments for separate patients,” McFarlane says. “The result is an overwhelming rate of alarm signals from multiple devices, associated with multiple patients, that do not carry the context of information needed to nurses to understand the signals relative to their responsibility to triage their efforts.”

**Rx for alarm management**

A major problem today is that devices are built by a multitude of vendors. In addition, many alarms sound similar, even though each alarm’s purpose is different. Also, medical devices made by different manufacturers cannot communicate with each other. Furthermore, medical devices are too often being designed as if the nurse is always standing at the bedside and can review the patient as soon as a device issues an alarm or a visual signal.

“Each hospital buys their technical components directly from many different primary manufacturers and then does their own custom integration,” says McFarlane. “Because no single hospital has the market power to motivate the many vendors to conform to standard interfaces, each hospital is faced with a very difficult integration effort. Talented engineers bring all the pieces together, but the result is not a well-designed ‘system’ and does not directly support the high-level workflow needs of the nurses and other end users.”

For alarm management to improve, says McFarlane, manufacturers need to examine the following three distinct areas related to how alerts issued from medical devices can support patient care decision making:

1. Alert generation—how alarms are created
2. Alert presentation—how the alarm signal is delivered to end users
3. Alert mediation—how raw alarm events are managed to support end users’ workflow needs

The third issue should be a particularly important R&D focus, as lessons from military “systems” thinking can be leveraged to inform a new design that combines raw device-based alarm signals with additional data to support a nurse’s decision making in response to a patient alarm.

“In current operations, there is a high rate of alarm signals generated, but the majority of these signals do not reflect clinically significant events. The main problem is that these alarms are not being delivered to their nursing consumers with enough contextual metadata to provide an understanding of their meaning or relative importance,” McFarlane says. “Computer networked data analytics are capable of dealing with the current high rates of streaming data and applying algorithms that can assess that data.”

In addition, more research is needed on how to link alarms to patient data through a secure computer network connected to a centralized server. When an alarm is generated, alarm mediation technology could package the delivery of that alarm with additional context information about the patient. This would enable health personnel to potentially understand the relative importance of that alarm signal and decide how to fit a response to the alarm into their multitasking.

Once an alarm can be turned into something actionable, after being paired with patient information, the last challenge is how to deliver it to the nurse.

“A nurse is mobile and does not work only at the bedside,” says McFarlane. “But through the use of mobile technology—devices and apps—information can be made available in a matter of minutes.”

“Current alarm generation functions do not align with the multitasking needed to triage attention across multiple patients. Instead, each alarm feature considers only local conditions on separate sensors on separate instruments for separate patients.”

—Daniel McFarlane, ScD
Why Hand Hygiene?

In the United States, one in 136 hospital patients become seriously ill as a result of acquiring an infection in the hospital. This is equivalent to two million cases a year.

And the costs... "the overall annual direct medical costs of HAI to U.S. hospitals ranges from $28.4 to $45 billion... the benefits of prevention range from a low of $5.7 to $6.8 billion to a high of $25.0 to $31.5 billion."

R. Douglas Scott II, Economist, Division of Healthcare Quality Promotion, CDC, March 2009

"Every day, 247 people die in the USA as a result of a health care-associated infection."

This is equivalent to a 767 aircraft crashing every day or more than 90,000 deaths annually.

WHO Guidelines on Hand Hygiene in Health Care

World Health Organization

SAVE LIVES: Clean Your Hands

Hand hygiene is the primary measure to reduce health care-associated infection.

Launched 5 May 2009, the SAVE LIVES: Clean Your Hands initiative aims to support health-care workers to improve hand hygiene and stop the spread of infection.

Health Care Associated Infections (HAI) affect hundreds of millions of people worldwide and are a major global issue for patient safety.

"Yet hand hygiene improvement is not a new concept... long lasting improvements remain difficult to sustain...."

WHO, Guide to Implementation of the WHO Multimodal Hand Hygiene Improvement Strategy

Joint Commission Center for Transforming Healthcare
Main Causes of Failure to Clean Hands (across all participating hospitals)

| Ineffective placement of dispensers or sinks | A | B | C | D | E | F | G | H |
| Hand hygiene compliance data are not collected or reported accurately or frequently |   | x | x | x | x |   |   | x |
| Lack of accountability and just-in-time coaching | x | x | x | x | x |   |   | x |
| Safety culture does not stress hand hygiene at all levels | x | x | x | x | x |   |   | x |
| Ineffective or insufficient education | x | x | x | x | x |   |   | x |
| Hands full | x | x | x | x | x | x |   | x |
| Wearing gloves interferes with process | x | x | x | x | x | x |   | x |
| Perception that hand hygiene is not needed if wearing gloves | x | x | x | x | x | x | x | x |
| Health care workers forget | x | x | x | x | x | x | x | x |
| Distractions | x | x | x | x | x | x | x | x |

Note that not all of the main causes of failure appear in every hospital. The chart above represents the validation of the root causes across hospitals. This underscores the importance of understanding hospital-specific root causes so that appropriate solutions can be targeted.

Update: January 14, 2015
Identifying Causes, Targeting Solutions

Causes

- Ineffective placement of dispensers or sinks
- Hand hygiene compliance data are not collected or reported accurately or frequently
- Lack of accountability and just-in-time coaching

Solutions

- Provide easy access to hand hygiene equipment and dispensers
- Data provide a framework for a systematic approach for improvement
- Utilize a sound measurement system to determine the real score in real time
- Scrutinize and question the data
- Measure the specific, high-impact causes of hand hygiene failures in your facility and target solutions to those causes
- Leadership commits to hand hygiene as an organizational priority and demonstrates support by role modeling consistent hand hygiene compliance
- Train leaders as just-in-time coaches to reinforce compliance
- Through just-in-time coaches, intervene to remind health care workers to wash their hands
- Implement employee contracts to be signed by all health care workers to reinforce their commitment to hand hygiene
- Apply progressive disciplinary action against repeat offenders. Expectations should be applied equally to all health care workers

Update: January 14, 2015
Identifying Causes, Targeting Solutions

**Causes**

- Safety culture does not stress hand hygiene at all levels
- Ineffective or insufficient education
- Hands full

**Solutions**

- Make hand hygiene a habit – as automatic as looking both ways when you cross the street or fastening your seat belt when you get in your car
- Commitment of leadership to achieve hand hygiene compliance of 90+ percent
- Serve as a role model by practicing proper hand hygiene
- Hold everyone accountable and responsible – doctors, nurses, food service staff, housekeepers, chaplains, technicians, therapists
- Provide general education on hand hygiene expectations. Include information on infection prevention, and stress the organization-wide commitment to hand hygiene highlighting strategies deployed to reinforce compliance such as posters and visual cues. Some organizations make this part of annual training provided to new and existing employees.
- Provide discipline-specific education that puts hand hygiene within the context of an employee’s daily work and processes
- Reinforce education with just-in-time coaching
- Create a place for everything: for example, a health care worker with full hands needs a dedicated space where he or she can place items while performing hand hygiene

Update: January 14, 2015
Identifying Causes, Targeting Solutions

**Causes**

- Wearing gloves interferes with process
- Perception that hand hygiene is not needed if wearing gloves
- Health care workers forget or Distractions

**Solutions**

- Locate glove dispensers near handrub dispensers and sinks to facilitate the proper use of gloves
- Provide training on glove use that incorporates hand cleansing and glove use within a specific work flow
- Use visual cues to reinforce and remind
- Provide discipline-specific education that puts hand hygiene within the context of an employee’s daily work and processes
- Standardize the work processes that involve entry into a patient’s room, and specify when and why hand hygiene is required; for instance, standard processes for food tray delivery and room cleanings.
- Provide discipline-specific education and training on glove use
- Use a code word to be used among health care workers to signal to a peer that they missed an opportunity and need to wash
- Identify new technologies to make it easy for health care workers to remember to clean their hands, such as RFID, automatic reminders, and warning systems
- Train and deploy just-in-time coaches to provide real-time reinforcement and feedback to health care workers. Just-in-time coaches are critical in creating a change in culture and behavior.
- Visual cues reinforce hand hygiene messages and training. These include stickers, colors, and posters. Visual cues need to be changed periodically so that they continue to be effective.
- Apply progressive disciplinary action against repeat offenders. Expectations should be applied equally to all health care workers.

Joint Commission Center for Transforming Healthcare

Update: January 14, 2015
Effective
Hygiene is in
Our HANDS

Habit
- Always wash in and wash out upon entering/exiting a patient care area and before and after patient care
- Make washing hands a habit – as automatic as looking both ways when you cross the street or fastening your seat belt when you get in your car

Active Feedback
- Coach and intervene to remind staff to wash hands
- Clearly state expectations about when to sanitize hands to all staff members
- Communicate frequently – provide visible reminders and ongoing coaching to reinforce effective hand hygiene expectations
- Engage staff – real time performance feedback
- Tailor education in proper hand hygiene for specific disciplines
- Provide just-in-time training
- Use technology-based reminders and real time feedback
- Celebrate improved hand hygiene

No One Excused
- Protect the patient and the environment – everyone must wash in and wash out
- Make it comfortable to wash hands with soap or use waterless hand sanitizer
- Identify proper hand hygiene as an organizational priority and performance expectation
- Hold everyone accountable and responsible – doctors, nurses, food service staff, housekeepers, chaplains, technicians, therapists
- Apply progressive discipline from the top – managers must hold everyone accountable for proper hand washing
- Commitment of leadership to achieve hand hygiene compliance of 90+ percent
- Serve as a role model by practicing proper hand hygiene

Data Driven
- Data provide a framework for a systematic approach for improvement
- Utilize a sound measurement system to determine the real score in real time
- Use trained, certified independent observers to monitor appropriateness of hand hygiene
- Scrutinize and question the data
- Measure the specific, high-impact causes of hand hygiene failures in your facility and target solutions to those causes

Systems
- Focus on the system, not just on people
- Make it easy; examine work flow of health care workers to ensure ease of washing hands:
  - Provide easy access of hand hygiene equipment and dispensers
  - Create a place for everything: for example, a health care worker with full hands needs a dedicated space where he or she can place items while washing hands
- Limit entries and exits from a patient’s room – make supplies available in room and eliminate false alarms that require staff to leave room to turn alarm off
- Identify new technologies to make it easy for staff to remember to wash hands, i.e. radio frequency identification, automatic reminders, warning systems, real time scoring

Joint Commission Center for Transforming Healthcare

Update: January 14, 2015
5 Sure-Fire Methods: The Universal Protocol for Preventing Wrong Site, Wrong Procedure, and Wrong Person Surgery

Wrong-site, wrong-procedure, and wrong-person surgery is entirely preventable, yet it still happens. Organizations can minimize risk by correctly identifying the patient, the procedure, and the procedure site using the Universal Protocol for Preventing Wrong Site, Wrong Procedure, and Wrong Person Surgery.™ The Universal Protocol is applicable to all surgical and nonsurgical invasive procedures conducted in accredited hospitals, critical access hospitals, ambulatory care organizations, and office-based surgery organizations. The Universal Protocol includes the following requirements:

• Conduct a preprocedure verification process. (UP.01.01.01)
• Mark the procedure site. (UP.01.02.01)
• A time-out is performed before the procedure. (UP.01.03.01)

(See “Related Requirements” on page 50 for the entire requirement.)

Although the Universal Protocol has been a Joint Commission requirement for many years, some organizations are still having difficulty with compliance. According to Ronald Wyatt, MD, medical director, The Joint Commission, and Coleen Smith, RN, BSN, MBA, high reliability initiatives director, The Joint Commission Center for Transforming Healthcare, several factors contribute to noncompliance. “Some organizations may simply be unaware of the Universal Protocol,” Wyatt says. “Others may be challenged by trying to keep up with ongoing training.”

Smith says that in her experience, many operating room (OR) teams do not know how to correctly conduct a time-out. “A lot of organizations don’t have a fully functional safety culture, which makes it difficult for them to reinforce the need to use the Universal Protocol,” she says.

Wyatt and Smith offer the following five strategies to help organizations to comply with the Universal Protocol for Preventing Wrong Site, Wrong Procedure, and Wrong Person Surgery:

1 Develop a policy on prevention. “We often assume that everyone has a policy on wrong-site surgery, but some organizations do not,” says Wyatt.

“When developing a policy, or reviewing an existing policy, look at any near misses, possible failure points, or unsafe conditions that could lead to wrong-site, wrong-procedure, or wrong-person surgery. Use that information to put barriers in place for prevention.” The Joint Commission Center for Transforming Healthcare has developed a Targeted Solutions Tool™ that can help organizations measure and understand the process risks for wrong-site, wrong-procedure, and wrong-person surgery. The tool is free to all accredited organizations and is available at http://www.centerfortransforminghealthcare.org/projects/detail.aspx?Project=2.

2 Develop a role-based time-out process. “The Center for Transforming Healthcare’s Targeted Solutions Tool includes video vignettes of what a good time-out should look like,” Smith says. “Each member of the OR team should clearly understand the role that he or she will play during a time-out. It’s important that processes be consistent so that everybody is doing the same thing the same way each time.”

3 Make sure the OR schedule is accurate. “A lot of things—such as the OR setup—flow from the OR schedule,” says Smith. “So if the schedule is incorrect, the room may be set up for the wrong surgery mistakes can be made.”

4 Provide ongoing staff training. “Staff needs to be knowledgeable about the Universal Protocol and be held accountable for implementing it 100% of the time,” Wyatt says. “They also need to understand the contributing factors to wrong-site, wrong-procedure, wrong-person surgery, such as surgeon fatigue or distraction, multiple surgeons, or unusual patient anatomy. Lack of teamwork or communication is almost always a contributing factor, so OR staff also needs to be trained on how to communicate.”

5 Develop a culture of safety. “Leadership needs to support staff who speak up when they feel that surgeons or other OR staff are not fully participating in the time-out process,” says Smith. “It’s really important to have an environment where staff is both encouraged to and expected to speak up when they have a patient safety concern.”
Related Requirements

The Universal Protocol for Preventing Wrong Site, Wrong Procedure, and Wrong Person Surgery™
UP.01.01.01
Conduct a preprocedure verification process.

Elements of Performance for UP.01.01.01

1. Implement a preprocedure process to verify the correct procedure, for the correct patient, at the correct site. 
   Note: The patient is involved in the verification process when possible.

2. Identify the items that must be available for the procedure and use a standardized list to verify their availability. At a minimum, these items include the following:
   - Relevant documentation (for example, history and physical, signed procedure consent form, nursing assessment, and preanesthesia assessment)
   - Labeled diagnostic and radiology test results (for example, radiology images and scans, or pathology and biopsy reports) that are properly displayed
   - Any required blood products, implants, devices, and/or special equipment for the procedure
   Note: The expectation of this element of performance is that the standardized list is available and is used consistently during the preprocedure verification. It is not necessary to document that the standardized list was used for each patient.

3. Match the items that are to be available in the procedure area to the patient.

UP.01.02.01
Mark the procedure site.

Elements of Performance for UP.01.02.01

1. Identify those procedures that require marking of the incision or insertion site. At a minimum, sites are marked when there is more than one possible location for the procedure and when performing the procedure in a different location would negatively affect quality or safety.
   Note: For spinal procedures, in addition to preoperative skin marking of the general spinal region, special intraoperative imaging techniques may be used for locating and marking the exact vertebral level.

2. Mark the procedure site before the procedure is performed and, if possible, with the patient involved.

3. The procedure site is marked by a licensed independent practitioner who is ultimately accountable for the procedure and will be present when the procedure is performed. In limited circumstances, the licensed independent practitioner may delegate site marking to an individual who is permitted by the organization to participate in the procedure and has the following qualifications:
   - An individual in a medical postgraduate education program who is being supervised by the licensed independent practitioner performing the procedure; who is familiar with the patient; and who will be present when the procedure is performed
   - A licensed individual who performs duties requiring a collaborative agreement or supervisory agreement with the licensed independent practitioner performing the procedure (that is, an advanced practice registered nurse [APRN] or physician assistant [PA]); who is familiar with the patient; and who will be present when the procedure is performed.
   Note: The organization's leaders define the limited circumstances (if any) in which site marking may be delegated to an individual meeting these qualifications.

4. The method of marking the site and the type of mark is unambiguous and is used consistently throughout the organization.
   Note: The mark is made at or near the procedure site and is sufficiently permanent to be visible after skin preparation and draping. Adhesive markers are not the sole means of marking the site.

5. A written, alternative process is in place for patients who refuse site marking or when it is technically or anatomically impossible or impractical to mark the site (for example, mucosal surfaces or perineum).
   Note: Examples of other situations that involve alternative processes include:
   - Minimal access procedures treating a lateralized internal organ, whether percutaneous or through a natural orifice
   - Teeth
   - Premature infants, for whom the mark may cause a permanent tattoo

UP.01.03.01
A time-out is performed before the procedure.

Elements of Performance for UP.01.03.01

1. Conduct a time-out immediately before starting the invasive procedure or making the incision.

2. The time-out has the following characteristics:
   - It is standardized, as defined by the organization.
   - It is initiated by a designated member of the team.
   - It involves the immediate members of the procedure team, including the individual performing the procedure, the anesthesia providers, the circulating nurse, the operating room technician, and other active participants who will be participating in the procedure from the beginning.

3. When two or more procedures are being performed on the same patient, and the person performing the procedure changes, perform a time-out before each procedure is initiated.

4. During the time-out, the team members agree, at a minimum, on the following:
   - Correct patient identity
   - The correct site
   - The procedure to be done

5. Document the completion of the time-out. Note: The organization determines the amount and type of documentation.

* For introductions and rationales to the Universal Protocol and related requirements, consult your Comprehensive Accreditation Manual.
Providing Optimum Care: Northport Veterans Affairs Medical Center Improves Anticoagulant Safety

By Cheryl Cohen MS; RN, Lisa Bailey MS,RN; Monique Thorne, EdD, MS, RN-BC

The Joint Commission’s National Patient Safety Goal (NPSG) Requirement NPSG.03.05.01 requires hospitals to reduce the likelihood of patient harm associated with anticoagulation therapy. The requirement contains eight elements of performance (EPs), which are scored based on the criticality of the potential risk to patients. Each of the eight EPs is criticality level 3, indicating that noncompliance will likely have a direct impact on patients.

Anticoagulants and antiplatelet drugs are used to eliminate or reduce the risk of blood clots. These medications work by stopping platelets from adhering to one another and clotting proteins from binding together. Anticoagulation therapy can be used as therapeutic treatment for several conditions, including atrial fibrillation, deep vein thrombosis, pulmonary embolism, and mechanical heart valve implant. However, anticoagulation medications are more likely than others to cause harm due to complex dosing, insufficient monitoring, and inconsistent patient compliance. For this reason, improving compliance with NPSG.03.05.01 has great potential to positively impact the safety of patients and result in better outcomes.

In 2014 Northport Veterans Affairs Medical Center (VAMC) strengthened its compliance within its anticoagulation therapy program. A multidisciplinary task force comprised of senior leaders was assembled and tasked with improving current practices so that veterans can receive anticoagulation therapy with optimum care. The goal of this team was to foster a healing environment and reduce the likelihood of any harm to the veteran receiving anticoagulation therapy. The team consisted of staff from the following areas:

- Pharmacy
- Nursing
- Medical staff
- Food and nutrition
- Telehealth
- Laboratory
- Patient safety
- Quality management

This team greatly contributed to Northport VAMC’s achieving full compliance with each EP of NPSG.03.05.01, to improved patient and family education, and to alignment of anticoagulation protocols with evidence-based guidelines.

Laying the Groundwork

The team began with an organizationwide risk assessment and gap analysis. To compare its actual performance with its expected performance to determine whether it met its expectations and used resources effectively. To help determine the scope of their efforts, Northport VAMC’s team realized they needed to define anticoagulation therapy. After a thorough review, the team achieved consensus on the following definition:

A medication that inhibits blood coagulation and includes any agent approved by the US Food and Drug Administration (FDA) to inhibit blood clotting.

With this definition, the team quickly realized that the name of their outpatient anticoagulant area, the Coumadin Clinic, was a misnomer. They agreed to change the name to the Anticoagulation Clinic because it includes all target-specific anticoagulants approved through the Pharmacy and Therapeutic committee.

Northport VAMC’s team next compared and aligned existing policies related to anticoagulation therapy, including the VA’s current Center Memorandum (policy), the Veterans Health Administration (VHA) directive, and the Veteran Integrated Service Network (VISN) anticoagulation program.3

Based on the risk assessment, gap analysis, and policy review, the team recommended the use of authoritative resources to develop methods of preventing potential food and drug interactions and to provide anticoagulation therapy education to prescribers, staff, patients, and families. Initial and ongoing education topics include the following:

- Importance of follow-up monitoring
- Patient compliance with medication instructions
- Dietary restrictions
- Potential drug/food interactions
- Potential adverse drug reactions and interactions

Addressing Patient Education

To achieve better patient outcomes, patient education is a vital component of an anticoagulation therapy program. Effective anticoagulation patient education includes direct interaction between the patient and a trained professional to confirm that the patient understands risks involved with anticoagulation therapy and how to prevent them. This includes the need for regular International Normalized Ratio (INR) monitoring. The use of standardized practices
What is warfarin?
Warfarin (also known as Coumadin®) helps keep your blood from clotting too much. It lowers the blood clotting proteins made with vitamin K by the liver.

How can you help warfarin work well?
1. See your health care provider as you are told.
2. Come to clinic on a routine basis to have your blood work checked.
3. So you don’t get injured:
   a. Use a soft toothbrush and brush teeth gently.
   b. Use an electric razor instead of manual razor.
   c. Avoid walking barefoot.
   d. Wear sturdy footwear that will not slip.
   e. Use extra caution when walking in risky weather conditions such as ice and snow.
   f. Use a saline nasal spray/drops to moisten nasal passages, and a machine that can increase moisture in a room.
4. Inspect your skin and observe for bruises (black and blue marks).
   a. If a sudden bruise occurs this maybe a sign of bleeding, contact your provider.
5. Take warfarin every day.
   a. Take warfarin at the same time each day, if possible during the evening around 5pm.
   b. Use a pill box to help remind you to take your warfarin.
   c. It is vital to remember to take your dose daily.
   d. Never double up on the dose of warfarin if you forget dose.
   e. Inform your health care provider of the date of any missed doses.
6. Let all health care professionals know that you are taking warfarin at each office visit.
   a. Inform the clinic and your physician that you are taking Warfarin before any surgeries or procedures.
      • Inform health care provider right away if you start any new medications, especially antibiotics (drug that treat infections/fever), prednisone, and amiodarone as these medications can thin the blood.

Source: Excerpted and adapted from: Warfarin Education. Northport Veterans Affairs Medical Center. Used with permission.
Providing Evidence-Based Care, Treatment, and Services

Evidence-based care recommendations and standardized protocols for anticoagulation management improve outcomes. In addition, anticoagulation management has been recognized by The Joint Commission as an opportunity for improving patient safety, via its National Patient Safety Goal for anticoagulation therapy. The team began to review evidence-based clinical practice guidelines to ensure that their processes were aligned with current best practices.

During this process, the team posed a clinical question: In patients receiving anticoagulation therapy, what are the appropriate dosing, laboratory monitoring, timing, and dosing adjustments for warfarin, unfractionated heparin, and low-molecular weight heparin to prevent coagulation-related complications?

The team used the Appraisal of Guidelines Research and Evaluation Collaboration (AGREE) instrument to evaluate the quality and relevance of identified guidelines in answering the clinical question.7 Best Evidence Statements (BESts) were developed for each of the medications (warfarin, low-molecular-weight heparin, and unfractionated heparin). BESts provide the format for the presentation of recommendations, discussion, and methods for point-of-care providers seeking synthesized evidence to guide care decisions. The primary goal of developing (and implementing) these statements was to standardize the use of anticoagulants and to prevent unsafe practices. A secondary goal was to ensure accessibility of the BESts throughout our organization, including the electronic medical record, various internal division home pages, and the organization’s external website.

The anticoagulant BESts developed at Northport-VAMC demonstrate how a multidisciplinary approach can promote evidence-based care. The BESts were developed to standardize anticoagulation therapy processes, as well as to provide dosing and monitoring parameters to ensure patient safety. The development of evidence-based care recommendations can be accomplished with a focused, interprofessional team dedicated to providing the safest possible care to patients.

These efforts also resulted in the development of a formal protocol for inpatient heparin use. This was produced through the collaboration of physicians, nurses, and pharmacists. The protocol was reviewed by leadership and accepted by the Medication Safety Committee, the Pharmacy and Therapeutics Committees, and the Clinical Executive Board. They also ensured that the frequency of INR testing required by the protocols were consistent with nationally recognized evidence-based guidelines. For this purpose the team referred to guidelines created by the American College of Chest Physicians.

The team also recommended the following actions:

- **Telemedicine can include self-monitoring.**
  Self-monitoring can improve the quality of oral anticoagulation therapy, with patients more frequently remaining in therapeutic range, while improving benefits and decreasing harm.8

- **A pharmacist will colead anticoagulation activities, including medication selection, patient education, and coordination of data.**
  Northport VAMC’s patient safety manager conducted a survey of other VA facilities to determine who had historically managed the anticoagulation services. The response included 26 VA hospitals who indicated that a PharmD was their coordinator. One hospital responded that a hematologist oncologist was their coordinator. Although the initial inpatient pharmacist anticoagulation role focused on warfarin and heparin, the emergence of newer anticoagulants or assay methods, reversal strategies, and recognition of different approaches to their use has created newer roles for these pharmacists.

- The hospital will develop a prescription protocol. Issues that can arise during anticoagulation therapy include unpredictable dose responses, a narrow therapeutic range, and a high potential for bleeding. This can lead to confusion on the part of the prescriber regarding appropriate indications for use and optimal dosing regimens. Prescribing guidelines can improve the quality and appropriateness of health care. Adoption of practice-based guidelines and programs to encourage risk stratification, as well as appropriate prophylaxis and treatment of venous thromboembolism (VTE), can optimize patient outcomes and minimize costs.

A hospitalwide committee was tasked with implementing and measuring the impact of these actions.

**Ongoing Work**

This task force is now being transitioned to a multidisciplinary committee that reports to the Pharmacy and Therapeutics Committee and the Clinical Executive Board. This committee will investigate the expansion of Talent Management System (TMS) education (the VA’s web-based, staff training program) for anticoagulation training for physical therapist, occupational therapist, and social work services. This committee will explore the possibility of an expansion of services through telehealth. This is expected to help improve veteran (patient) engagement in their health care needs.
References


Cheryl F. Cohen, MS, RN, is a Quality Management Specialist at the Northport VAMC. Her role is to ensure compliance with accreditation standards, coordinate, develop, implement, monitor, and evaluate compliance activities throughout the facility in order to attain and maintain Joint Commission accreditation status across four programs: Hospital, Behavioral Health Care, Nursing Care Centers and Home Care.

Lisa. C. Bailey, RN, MS, is the Patient Safety Manager at the Northport VAMC. Her role includes developing and supporting a culture of safety at Northport VAMC.

Monique Thorne, EdD, MS, RN-BC, is the Nurse Educator for Acute and Critical Care areas. Ms. Thorne has more than 25 year's experience in the nursing field. She received her Masters of Nursing Education from Adelphi University, Garden City, New York, and her Doctor of Education degree from Walden University, Minneapolis.
Appendix A: Additional Resources

Print Resources

JCR periodical articles can be purchased on PubMed via Ingenta (http://www.ingentaconnect.com/).

Electronic Resources

The Joint Commission: http://www.jointcommission.org
Joint Commission Resources: http://www.jcrinc.com/

NOTE: The Internet is an ever-evolving environment and links are subject to change without notice.
Appendix B: Faculty Biographies

NOTE: These presenters do not have any financial arrangements or affiliations with corporate organizations that either provide educational grants to this program or may be referenced in this activity. These presenters have also attested that their discussions will not include any unapproved or off-label use of products.

Burton L. Thelander, RN, MS, NE-BC
Field Representative, The Joint Commission
Performance Improvement Specialist, NYU-Langone Medical Center

Burton Thelander currently is a resident of New York State. He surveys the standards in the Comprehensive Accreditation Manual for Hospitals and Behavioral Health Care and presently is a surveyor in the Hospital and Behavioral Health Accreditation Program.

Mr. Thelander is employed part time at NYU Langone Medical Center in New York, New York as a Performance Improvement Specialist. Prior to joining The Joint Commission, Mr. Thelander was a Director of Nursing and Director of Advanced Practice within the New York State Office of Mental Health inpatient and outpatient behavioral health service.

Mr. Thelander is certified as a Nurse Executive by the American Nurse Credentialing Center and currently is licensed in New York State as a Professional Registered Nurse.

Lew Soloff, MD
Physician Surveyor
The Joint Commission

Dr. Soloff graduated from SUNY Downstate Medical School and completed his residency at Maimonides Medical Center in Brooklyn, New York. For over 25 years he was Chief of Emergency Services at large teaching hospitals in Brooklyn and assumed administrative responsibilities as Senior Vice President for Medical Management in 1998 at Lutheran Medical Center.

In his role as Emergency Services Director, he was closely involved with the events of 9/11. His hospital was the nearest Level 1 Trauma Center outside of Manhattan, and early in the tragedy, they received over 70 patients.

In addition, he served as the incident commander at his hospital during the city-wide black out in August 2003. He was responsible for development of his hospital's emergency response plans and after-action reports in the aftermath of these events.

Dr. Soloff served as the Senior Medical Coordinator for the Healthcare Emergency Preparedness Program for the New York City Department of Health and Mental Hygiene from 2005 through July 2014. In this role, he had been working on regional surge capacity assessment, most notably for burn/trauma and pandemic events, and he was responsible for development of a plan for ventilator assessment and acquisition for New York City. He was actively involved in the planning and response for the two major coastal storms that impacted New York City.

In addition, since 2004, Dr. Soloff has been trained as a hospital surveyor for The Joint Commission.
Appendix C: Continuing Education (CE) Accrediting Bodies

To be eligible for CE credit from any of the following accrediting bodies, you MUST view the video presentation and read the Resource Guide first. Then, complete the post test at http://twnlms.com/ by the due date listed online. See Appendix E.

**Accreditation Council for Continuing Medical Education (ACCME)**
The Joint Commission is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians. JCR takes responsibility for the content, quality, and scientific integrity of this CME activity. JCR designates this educational activity for 1.0 contact hour of AMA PRA Category 1 Credit(s)™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

**American Nurses Credentialing Center's Commission on Accreditation (ANCC)**
The Joint Commission is also accredited as a provider of continuing nursing education by the American Nurses Credentialing Center's Commission on Accreditation. JCR designates this continuing nursing education activity for 1.0 contact hour.

Joint Commission Resources (JCR) is a provider approved by the California Board of Registered Nursing, provider number CEP 6381 for 1.0 contact hours.

**American College of Healthcare Executives (ACHE)**
JCR is authorized to award 1.0 contact hour of pre-approved ACHE Qualified Education credit for this program toward advancement, or re-certification in the American College of Healthcare Executives. Participants in this program wishing to have the continuing education hours applied toward ACHE Qualified Education credit should indicate their attendance when submitting application to the American College of Healthcare Executives for advancement or re-certification.

**National Association for Healthcare Quality (NAHQ)**
This activity has been approved by the National Association for Healthcare Quality (NAHQ) for 1.0 Certified Professional Healthcare Quality (CPHQ) CE credit.

**International Association for Continuing Education and Training (IACET)**
The Joint Commission has been accredited as an Authorized Provider by the International Association for Continuing Education and Training (IACET). In obtaining this accreditation, JCR has demonstrated that it complies with the ANSI/IACET Standard, which is recognized internationally as a standard of good practice. As a result of their Authorized Provider status, JCR is authorized to offer IACET CEUs for its programs that qualify under the ANSI/IACET Standard. JCR is authorized by IACET to offer 0.1 CEUs for this program.

**Certified Joint Commission Professional (CJCP)**
This education offering qualifies for 1.0 CJCP credit hours towards CJCP recertification. In order to obtain CJCP credit hours, an individual must first be certified before they start acquiring CJCP credit hours. CJCP credit hours will not be retroactive.

Successful completion of this CE activity includes the following:

- View the presentation and read the accompanying Resource Guide.
- Complete the online Evaluation Form and Post Test.
- A CE certificate/statement of credit can be printed online following successful completion of the Post Test and the Evaluation Form.

**NOTE:** This information applies to The Joint Commission Resources Quality & Safety Network program titled, *2016 National Patient Safety Goals: What You Need to Know*, originally presented on Thursday, January 28, 2016 from 2:00 – 3:00 p.m. ET. There is no individual participant fee for this educational activity.
## Appendix D: Discipline Codes Instructions

Some of our programs are accredited for more than one discipline. To ensure that we issue each participant a certificate by the appropriate accrediting body, we ask that you supply us with the following information: 1) two-digit discipline code. 2) followed by the position code (example: for a medical doctor, use 10 MD).

<table>
<thead>
<tr>
<th>Discipline (CME)</th>
<th>Discipline Code</th>
<th>Position Code</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physician</td>
<td>10</td>
<td>MD</td>
<td>Medical Doctor</td>
</tr>
<tr>
<td></td>
<td>MDFP</td>
<td>MD-Family Practice</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MDPS</td>
<td>MD-Psychiatrist</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MDPH</td>
<td>MD-Public Health Certificate</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MDPP</td>
<td>MD-Public Psychiatry Certificate</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MDAC</td>
<td>MD-Area Clinical Needs</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MDMF</td>
<td>MD-Medical Faculty Certificate</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MSP</td>
<td>MD-Medical Staff Physician</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MDLL</td>
<td>MD-Limited License</td>
<td></td>
</tr>
<tr>
<td></td>
<td>DO</td>
<td>Doctor of Osteopathy</td>
<td></td>
</tr>
<tr>
<td>Administration</td>
<td>12</td>
<td>HA</td>
<td>Hospital Administrator</td>
</tr>
<tr>
<td></td>
<td>ADM</td>
<td>LTC Administrator</td>
<td></td>
</tr>
<tr>
<td></td>
<td>OA</td>
<td>Other Administrator</td>
<td></td>
</tr>
<tr>
<td>Pharmacy</td>
<td>13</td>
<td>PH</td>
<td>Pharmacist (PharmD)</td>
</tr>
<tr>
<td></td>
<td>PHN</td>
<td>Pharmacist, Nuclear</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PHC</td>
<td>Pharmacist, Consultant</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PA</td>
<td>Pharmacy Technician</td>
<td></td>
</tr>
<tr>
<td>Dietary</td>
<td>14</td>
<td>RD</td>
<td>Registered Dietitian/Nutritionist</td>
</tr>
<tr>
<td></td>
<td>NC</td>
<td>Nutrition Counselor</td>
<td></td>
</tr>
<tr>
<td></td>
<td>DTR</td>
<td>Dietetic Technician</td>
<td></td>
</tr>
<tr>
<td>Dietary Manager</td>
<td>15</td>
<td>DOD</td>
<td>Dietary Manager</td>
</tr>
<tr>
<td>Counseling</td>
<td>16</td>
<td>MHC</td>
<td>Mental Health Counselor, Licensed</td>
</tr>
<tr>
<td></td>
<td>SW</td>
<td>Social Worker, Licensed</td>
<td></td>
</tr>
<tr>
<td></td>
<td>OCT</td>
<td>Other Counselor/Therapist</td>
<td></td>
</tr>
<tr>
<td>Laboratory</td>
<td>17</td>
<td>LTG</td>
<td>Laboratory Technologist/Professional</td>
</tr>
<tr>
<td></td>
<td>LT</td>
<td>Laboratory Technician</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LS</td>
<td>Laboratory Supervisor</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LD</td>
<td>Laboratory Director</td>
<td></td>
</tr>
<tr>
<td>Physical Therapy</td>
<td>18</td>
<td>PT</td>
<td>Physical Therapist</td>
</tr>
<tr>
<td></td>
<td>PTA</td>
<td>Physical Therapy Assistant</td>
<td></td>
</tr>
<tr>
<td>Occupational Therapy</td>
<td>19</td>
<td>OT</td>
<td>Occupational Therapist</td>
</tr>
<tr>
<td></td>
<td>OTA</td>
<td>Occupational Therapy Assistant</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Discipline (CNE)</th>
<th>Discipline Code</th>
<th>Position Code</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respiratory Therapy</td>
<td>20</td>
<td>RT</td>
<td>Respiratory Therapist, Registered</td>
</tr>
<tr>
<td></td>
<td>RTC</td>
<td>Respiratory Therapist, Certified</td>
<td></td>
</tr>
<tr>
<td></td>
<td>RPNC</td>
<td>Resp. Practitioner, Non-Critical Care</td>
<td></td>
</tr>
<tr>
<td></td>
<td>RPTC</td>
<td>Resp. Practitioner, Critical Care</td>
<td></td>
</tr>
<tr>
<td>Medical Records</td>
<td>21</td>
<td>RHA</td>
<td>Health Information Administrator</td>
</tr>
<tr>
<td></td>
<td>RHT</td>
<td>Health Information Technician</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CCS</td>
<td>Coding Specialist</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CCP</td>
<td>Coding Specialist, Physician-Based</td>
<td></td>
</tr>
<tr>
<td>Radiology</td>
<td>22</td>
<td>RAD</td>
<td>Radiologic Technologist</td>
</tr>
<tr>
<td>Sonography</td>
<td>23</td>
<td>MS</td>
<td>Medical Sonographer</td>
</tr>
<tr>
<td>Athletic Training</td>
<td>24</td>
<td>AT</td>
<td>Athletic Trainer</td>
</tr>
<tr>
<td>HC Quality</td>
<td>25</td>
<td>HQP</td>
<td>Healthcare Quality Professional</td>
</tr>
<tr>
<td>Activity Professional</td>
<td>26</td>
<td>ADP</td>
<td>Profession Activity Director</td>
</tr>
<tr>
<td></td>
<td>ADC</td>
<td>Activity Director</td>
<td></td>
</tr>
<tr>
<td></td>
<td>AAC</td>
<td>Activity Assistant</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ACC</td>
<td>Activity Consultant</td>
<td></td>
</tr>
<tr>
<td>Nurse (CNE)</td>
<td>30</td>
<td>RN</td>
<td>Registered Nurse</td>
</tr>
<tr>
<td></td>
<td>ARNP</td>
<td>Advanced RN Practitioner</td>
<td></td>
</tr>
<tr>
<td></td>
<td>NP</td>
<td>Nurse Practitioner</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LPN</td>
<td>Licensed Practical Nurse (or LVN)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ON</td>
<td>Other Nursing Professional</td>
<td></td>
</tr>
<tr>
<td>Psychology</td>
<td>33</td>
<td>PSY</td>
<td>Psychologist (non-MD)</td>
</tr>
<tr>
<td></td>
<td>PSYL</td>
<td>Psychologist, Limited License</td>
<td></td>
</tr>
<tr>
<td>Case Mgmt</td>
<td>35</td>
<td>CCM</td>
<td>Certified Case Manager</td>
</tr>
<tr>
<td>Nursing Assistant</td>
<td>45</td>
<td>CNA</td>
<td>Certified Nursing Assistant</td>
</tr>
<tr>
<td></td>
<td>RA</td>
<td>Restorative Care Aide</td>
<td></td>
</tr>
<tr>
<td></td>
<td>HS</td>
<td>Health Support Aide</td>
<td></td>
</tr>
<tr>
<td></td>
<td>NA</td>
<td>Nurse Aide, Non-certified</td>
<td></td>
</tr>
<tr>
<td></td>
<td>NT</td>
<td>Nursing Technician</td>
<td></td>
</tr>
<tr>
<td>Emergency Medical Services</td>
<td>46</td>
<td>CFR</td>
<td>First Responder</td>
</tr>
<tr>
<td></td>
<td>EMTB</td>
<td>EMT, Basic Level/EMT1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>EMTI</td>
<td>EMT, Intermediate Level/EMT2/EMT3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>EMTP</td>
<td>EMT, Paramedic Level/EMT4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>OTH</td>
<td>Other</td>
<td></td>
</tr>
<tr>
<td>Health Unit Coor</td>
<td>55</td>
<td>CHUC</td>
<td>Health Unit Coordinator, Certified</td>
</tr>
<tr>
<td>Other</td>
<td>27</td>
<td>OTH</td>
<td>Other</td>
</tr>
</tbody>
</table>
Appendix E: Post-Test

To be eligible for CE credit, you MUST view the video presentation and read the Resource Guide first. Then complete the post-test at http://twnlms.com/ by the due date listed online.

1. The Joint Commission established the National Patient Safety Goals to help accredited organizations address specific quality and safety challenges in regard to patient safety.
   a. True
   b. False

2. The Patient Safety Advisory Group, a panel that advises The Joint Commission on NPSGs, includes _____.
   a. nurses
   b. physicians
   c. pharmacists
   d. All of the above.

3. Hospitals were required to implement Phase II of the National Patient Safety Goal requirements on alarm management by _____.
   a. January 1, 2015
   b. July 1, 2015
   c. January 1, 2016
   d. January 1, 2014

4. Which NPSG expects organizations to reduce the likelihood of patient harm associated with the use of anticoagulant therapy?
   a. 02.03.01
   b. 03.05.01
   c. 07.01.01
   d. 14.01.01

5. Phase II of the alarm management NPSG requires the establishment of policies and procedures addressing _____.
   a. clinically-appropriate settings for alarm signals
   b. when alarm signals can be disabled
   c. when alarm parameters can be changed
   d. All of the above.

6. NPSG.06.01.01 expects organizations to effectively _____.
   a. manage risk during the transition to new ISO tubing connector standards
   b. reduce the likelihood of patient harm associated with the use of anticoagulant therapy
   c. improve the safety of clinical alarm systems
   d. prevent surgical site infections

7. Phase II of the alarm management NPSG requires the education of staff and licensed independent practitioners about the purpose and proper operation of alarm systems for which they are responsible.
   a. True
   b. False
8. Which NPSG expects organizations to comply with either the current CDC hand hygiene guidelines or the current World Health Organization hand hygiene guidelines?
   a. 07.01.01
   b. 03.04.01
   c. 02.03.01
   d. 01.01.01

9. Because the NPSGs are considered Goals, they are NOT actual Joint Commission requirements and are NOT evaluated by surveyors.
   a. True
   b. False

10. UP.01.03.01 describes expectations regarding _____.
    a. marking the procedure site
    b. performing a time-out before an invasive procedure
    c. conducting a preprocedure verification process
    d. establishing an alternative process for patients who refuse site marking
Appendix F: JCRQSN Contact Information

General information, customer service issues, or program reception issues
JCRQSN Customer Service Team
support@jcrqsn.com
toll-free 1-888-219-4678

Questions or comments about JCRQSN educational programming
George Riccio
Executive Producer, Video and Audio Programs
Lean Six Sigma Certified Yellow Belt
Publications and Education Department
griccio@jcrinc.com
1-630-792-5428

Questions about continuing education
JCRQSN Continuing Education Support Team
support@jcrqsn.com
1-888-219-4678

Questions about standards
Joint Commission Standards Interpretation Group
1-630-792-5900

Questions about JCR education or other resources
JCR Customer Service Center
1-877-223-6866