



## Errors related to JCAHO's National Patient Safety Goals

In 2002, JCAHO formed the Sentinel Event Alert Advisory Group to help develop the first set of National Patient Safety Goals (NPSGs) that were put into effect on Jan. 1, 2003. NPSGs and their accompanying requirements represent specific actions that JCAHO-accredited organizations are expected to take in order to prevent medical errors such as miscommunication among caregivers, unsafe use of infusion pumps, and medication mix-ups. USP has studied medication error data findings reported to the MEDMARX program in relation to the following 2005 NPSGs:

### Selected JCAHO National Patient Safety Goals - 2005

*Goal 1.* Improve the accuracy of patient identification

*Goal 2.* Improve the effectiveness of communication among caregivers

*Goal 5.* Improve the safety of using infusion pumps

#### • *Error findings related to Goal 1*

During the period 2001-03, there were 532,144 error records submitted to MEDMARX. Approximately 4.4% of these ( $n = 23,689$ ) cited Wrong Patient as a Type of Error. Nearly 50% of Wrong Patient errors did reach the patient but did not result in harm. Although only 1.3% of all Wrong Patient errors resulted in harm, there were 10 sentinel events (including three fatalities) associated with this type of error.

• *Error findings related to Goal 2*  
Communication among caregivers occurs primarily through written/electronic documentation or verbally (telephone or person-to-person). Breakdowns in communication occur with each type. When combining several different communication variables together, this grouping of "communication selections" became the third most frequent Cause of Error reported to MEDMARX during 2001-2003.

#### • *Error findings related to Goal 5*

During the 2001-03 time frame, 4,917 records cited errors involving infusion pumps. Over 90% recorded that these errors originated in the Administering Node. Eight percent ( $n = 395$ ) of these errors were harmful, including 10 sentinel events. For data collected through MEDMARX, infusion pump errors involve two Causes of Error—pump failure/malfunction and improper use of the pump.

### Improving medication safety related to the NPSGs

#### • *Patient identification*

1. Conduct a review of the processes used in the admission of the patient into the facility. What patient-specific identifiers are collected and placed on the patient's wristband, addressograph card, or computer record? Are there select identifiers that nurses, pharmacists, and physicians find easier to use (e.g., date of birth, Social Security number, or hospital admission number)?

2. Examine the admission/discharge/transfer (ADT) information system. What precautions or safeguards are in place to prevent patient mix-ups (e.g., patients with the same last name residing in the same room or within the same patient care unit)? How quickly is ADT information updated?

3. All employees who assume any level of responsibility for patient care (e.g., transportation) or who administer care (noninvasive or invasive care including transfusions and medication administration) to a patient should first verify that an ID band is attached to that patient and to confirm that information on the ID band exactly

matches documented orders and/or labeled materials (e.g., medications or blood products) intended for use with that patient. Documentation may be the medical chart or medical chart surrogate.

#### • *Communication*

The Institute for Healthcare Improvement (IHI) offers a technique—SBAR (Situation/Background/Assessment/Recommendation)—that provides a framework for communication between members of the healthcare team.

#### • *Using infusion pumps safely*

1. Require proper and complete training and demonstration of competency before staff is permitted to work with pumps.

2. Provide written instructions to patients regarding their role in ensuring proper use of patient-controlled analgesia (PCA) pumps. Instruct family members NOT to administer PCA doses—PCA by definition should be administered at the patient's perception of need. Document education of patient and family members.

3. Pumps should have upstream occlusion alarms.

4. Standardize the strengths/concentrations of IV solutions that often use an IV pump to deliver the solution. Be sure physicians are aware of the standard concentrations in use. If higher concentrations are needed for a particular patient or certain settings, conduct a Failure Mode and Effects Analysis (FMEA) to ensure additional safeguards are in place.

5. Check whether connections are to IV or epidural lines to prevent wrong route errors.

6. Set pumps to be programmed in mg, NOT mL.

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USP operates two complementary reporting programs: the Medication Error Reporting Program, presented in cooperation with the Institute for Safe Medication Practices, and MEDMARX. For more information on how to report errors, visit: [www.usp.org/patientsafety](http://www.usp.org/patientsafety).

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