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# USP Patient Safety CAPSLink™

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### USP Patient Safety CAPSLink™

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This message has been sent to you as a service of the U.S. Pharmacopeia, Center for the Advancement of Patient Safety (CAPS). USP is a not-for-profit, non-governmental organization that promotes the public health by establishing state-of-the-art standards to ensure the quality of medicines and other health care technologies. CAPS is a component of USP's Patient Safety public health program. The USP Center for the Advancement of Patient Safety was created to encourage medication error reporting, conduct data analysis and research, develop educational programs, and propose standards, recommendations, and guidelines that ultimately improve the safety and quality of patient care.

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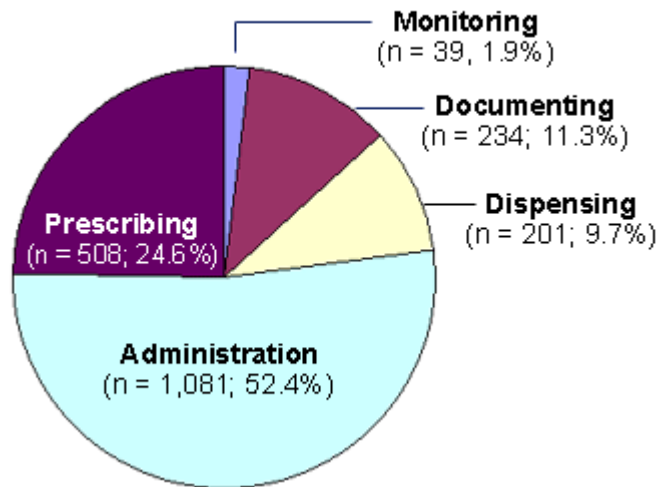
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## Medication Errors Emergency Departments and Recommendations for Prevention

The Emergency Department (ED) is typically organized to deliver prompt, life-sustaining care, and its role, purpose, and function differ from other patient care areas. The combination of interruptions, intense pressure, and a fast-paced environment can lead to medication errors and fewer error interceptions. In the ED, USP found that fewer (i.e., 23%) errors were intercepted before reaching patients as opposed to a general interception rate of 39% for all other areas within the hospital.

Although omission errors were most frequently reported among hospital systems overall, improper dosing was found to be the most common type of error in the ED. Seventy-seven percent of medication errors cited in EDs occurred during the prescribing and administering phases.

### Emergency Department



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### Leading Medication Errors in the Emergency Department

Upon analysis of drug errors submitted to MEDMARX, USP's anonymous national medication error reporting database, and USP's Medication Errors Reporting Program\*, USP identified the following medication errors as those most frequently occurring in the emergency department:

- Improper dose/quantity errors – involves any dose or strength that differs from the prescribed dose or strength. Includes incorrect quantity (e.g., tablets) dispensed.

- Prescribing errors – involves an incorrectly prescribed or authorized order (verbal or written communication).
- Omission errors – involves failure to administer an ordered medication; excludes patients refusal and clinical decision (contraindication) or other reason (e.g., patient sent for test) not to administer.

| <b>TYPE of ERROR</b>           | <b>n</b> | <b>%*</b> |
|--------------------------------|----------|-----------|
| Improper dose/quantity         | 491      | 24        |
| Prescribing error              | 357      | 17.4      |
| Omission error                 | 357      | 17.4      |
| Unauthorized/wrong drug        | 225      | 11        |
| Extra dose                     | 144      | 7         |
| Wrong patient                  | 133      | 6.5       |
| Wrong drug preparation         | 88       | 4.3       |
| Wrong route                    | 80       | 3.9       |
| Wrong administration technique | 80       | 3.9       |
| Wrong time                     | 73       | 3.6       |
| Wrong dosage form              | 22       | 1.1       |

**\*Based on 2,050 selections. 2003 Copyright USPC, Inc.**

### **Recommendations for Health Care Practitioners: Preventing ED Medication Errors**

USP offers health care practitioners the following recommendations to help ensure that medication errors do not occur in the ED:

- Educate personnel about the types of errors that occur in the use of high-alert medications (which are known to cause severe injury to patients when administered incorrectly).
- Expand the use of decentralized pharmacists to cover the ED.
- When possible, minimize verbal orders for medications and require that medication orders be entered electronically.
- Design workflow within the ED in a manner that improves communication, minimizes interruptions and distractions and provides for double checks and verbal confirmations before medications are given to the patient.
- Purchase premixed intravenous solutions and unit-dose medications.

\*USP's Medication Errors Reporting Program is operated in conjunction with the Institute for Safe Medication Practices (ISMP).

## 1. JCAHO Standards and Survey Updates

New Standards for 2004: Joint Commission's Standards and Survey Procedures (SSP) Committee approved two more chapters—Provision of Care and Medication Management that, once finalized, will be included in the ambulatory, behavioral health care, home care, hospital, laboratory and long term care programs, and take effect January 2004. Medication Management is a new chapter based on standards from the existing Care of Patients chapter. Organizations scheduled for first-quarter 2004 surveys will be able to access a pre-publication version of the revised standards on the extranet in June.

Unannounced Surveys By 2006: JCAHO intends to begin conducting all regular accreditation surveys on an unannounced basis beginning in January 2006. Unannounced surveys will be pilot-tested in volunteer organizations during 2004 and 2005. Details about the plan to introduce unannounced triennial surveys will be shared with accredited organizations in the coming months through educational programs, newsletters and other outreach activities. [Click here to read more](#)

Compliance with 2003 National Patient Safety Goals: Since January 1, 2003, JCAHO began surveying health care organizations' compliance with the 2003 National Patient Safety Goals. From the 313 surveys completed thus far, most health care organizations were found to be in compliance with the Goals. However, some of the recommendations are more challenging than others, including prohibited abbreviations (7 percent non-compliance), two identifiers (2.6 percent non-compliance) and surgical site marking (2.2 percent non-compliance). [Click here to read more](#)

Identifying the 2004 National Patient Safety Goals: Joint Commission's Sentinel Event Alert Advisory Group met in March to begin identifying the Goals for 2004. In addition to considering the continuation of some 2003 Goals, potential new topics for 2004 include preventing surgical fires, eliminating kernicterus, and reducing the risk of serious nosocomial infections. [Click here to read more](#)

## 2. Computerized Prescriber Order Entry

Study examines CPOE costs: A study of the experiences of five hospitals' by First Consulting Group shows that a 500-bed hospital with 25,000 admissions a year can expect to spend \$7.9 million to implement a computer physician order entry (CPOE) system and \$1.35 million a year to run the system. [Click here to read more](#)

CPOE in the VA System: A feature in the *Journal of the American Medical*

*Informatics Association* examines the development and implementation of a Department of Veteran Affairs hospital's modified computerized physician order entry (CPOE) system. [Click here to read more](#)

CPOE Not 100% Effective at Reducing Errors: A study in the journal *Pediatrics* found that while a CPOE system alone could have prevented 66% of the total errors, CPOE combined with a clinical decision support system could have prevented 73%. However, the most effective error prevention strategies were organizational and behavioral changes (e.g., having a clinical pharmacist to monitor the medication process in pediatric departments could have prevented 81% of errors, and improving communication between physicians, nurses and pharmacists could have prevented 76% of errors). [Click here to read more](#)(Subscription required for full text).

### **3. Leapfrog Group Revises Safety Measures**

The Leapfrog Group recently revised its earlier recommended safety practices to provide more time for hospitals to adopt computerized physician order entry (CPOE) systems. Also included in the changes was a broader definition of "intensivist" as well as including clinical process and outcome measures of quality. The Leapfrog Group, a coalition of organizations that provide health care benefits, uses their Hospital Patient Safety Survey tool to inform employers and the public about hospital performance on patient safety.

The survey focuses on three sets of safety measures: computerized physician order entry, evidence-based hospital referral, and the use of critical care physicians known as intensivists. The evidence-based referral measures previously focused exclusively on volume measures of quality. [Click here to read more](#)

### **4. Guide to Warfarin Therapy**

The American Heart Association and the American College of Cardiology have published a scientific statement on the management of oral anticoagulant therapy and its clinical applications. [Click here to read more](#)

### **5. AHRQ Releases New Patient Safety Indicators**

The Agency for Healthcare Research and Quality (AHRQ) now offers quality indicators (QIs) that rely on hospital inpatient administrative data and are organized into three groups:

- Prevention QIs (or ambulatory care-sensitive conditions) identify hospital admissions that evidence suggests could have been avoided, at least in part, through high-quality outpatient care.

- Inpatient QIs, which reflect quality of care inside hospitals. They include:
  - Inpatient mortality for medical conditions;
  - Inpatient mortality for procedures;
  - Utilization of procedures for which there are questions of overuse, underused, or misues; and
  - Volume of procedures for which there is evidence that a higher volume of procedures is associated with lower mortality.
- Patient Safety Indicators (PSIs), which also reflect quality of care inside hospitals, but focus on surgical complications and other iatrogenic events.

AHRQ Quality Indicators: <http://www.qualityindicators.ahrq.gov> To view/download the PSIs see: <http://www.qualityindicators.ahrq.gov/data/hcup/psi.htm>

## **6. Resolving Abbreviation Problems**

Standardizing the abbreviations, acronyms, and symbols used throughout an organization, including a list of abbreviations, acronyms, and symbols not to use, is one of the recommendations in the JCAHO's National Patient Safety Goals for 2003. Many organizations are revisiting their "approved" abbreviations list, but ISMP recommends more emphasis should be placed on a list of dangerous abbreviations that should never be used at all. For example, abbreviations for discharge ("D/C"), subcutaneous ("S/C," or "S/Q") and the Latin abbreviation for every day ("Q.D."), are classified as unacceptable and dangerous abbreviations by the JCAHO, USP, NCC MERP, ISMP, and other organizations. Both JCAHO and ISMP urged a cooperative industry effort be undertaken to develop a universally accepted reference list for abbreviations.

Cross walk of Unacceptable and Dangerous Abbreviations: [Click here](#)  
ISMP Dangerous Abbreviations: [Click here](#)

## **7. Medication-Use-System Safety Strategy Available Free from ASHP**

The American Society of Health-System Pharmacists (ASHP) has developed a Medication-Use-System Safety Strategy – a guidance document that provides a practical, systematic, actionable approach for health care organizations wanting to design, implement, and maintain safe medication-use systems. This free publication includes both theorized and known principles necessary for designing, implementing, and maintaining safe medication-use systems. [Click here](#)

## **8. ASHRM Hosts Audio-conference on Patient Safety Strategies**

The American Society for Healthcare Risk Management (ASHRM), will sponsor an audio-conference on "Patient Safety Strategies for Perioperative Services" from 2-3:30 p.m. (EST) on April 29. The conference will address common perioperative

errors, underlying causes and suggested risk reduction strategies. [Click here](#)

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USP operates two complementary error reporting programs; the ***Medication Errors Reporting Program*** which operates in cooperation with the Institute for Safe Medication Practices and ***MEDMARX***™. MEDMARX is an Internet-accessible, anonymous medication error reporting program and quality improvement tool used to track and trend medication errors. For more information, visit [www.usp.org](http://www.usp.org)

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