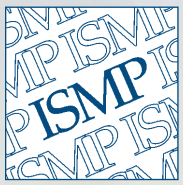
2004

ISMP Medication Safety Self Assessment®

for Hospitals



Institute for Safe Medication Practices

a nonprofit organization

Organizations that have endorsed this self assessment:

American College of Physicians

American Hospital Association

American Organization of Nurse Executives

American Pharmacists Association

American Society of Healthcare Risk Management

American Society of Health-System Pharmacists

Amerinet

Anesthesia Patient Safety Foundation

Association of American Medical Colleges

Broadlane

Catholic Health Association

Child Health Corporation of America

Federation of American Hospitals

Health Information and Management Systems Society

Health Research and Educational Trust

Joint Commission on Accreditation of Healthcare Organizations

National Center for Quality Assurance

The National Patient Safety Foundation

Premier

The United States Pharmacopeial Convention, Inc.

University HealthSystem Consortium

VHA, Inc

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Dear Healthcare Provider:

The Institute for Safe Medication Practices (ISMP) is pleased to provide the nation's hospitals with the **2004 ISMP Medication Safety Self Assessment® for Hospitals**. As with our 2000 ISMP Medication Safety Self Assessment®, this project represents one of many initiatives created through a strategic partnership between ISMP, the American Hospital Association (AHA), and the Health Research and Educational Trust (HRET) of the AHA.

The 2004 tool will help you assess the safety of medication practices in your facility, identify opportunities for improvement, and compare your experiences with the aggregate experiences of demographically similar hospitals. If you completed the 2000 self assessment, you will also be able to compare your prior results with your current findings to document improvements over time or focal areas that require ongoing attention.

To aid comparison between 2000 and the 2004, the **2004 ISMP Medication Safety Self Assessment® for Hospitals** consists of the same items provided in the 2000 tool. However, with the assistance of an interdisciplinary advisory panel, we clarified some of the self-assessment items to promote understanding of their intent. We also split some of the multiple-part items into two separate items to facilitate more precise assessment.

Additionally, we are excited to announce that **we have added new items to the tool**, which represent emerging areas of concern over the past four years, new research findings about error prevention, and new technologies previously not available in 2000. However, we have taken all the necessary steps to ensure that any changes to the prior items, or new items added to the tool, will not interfere with your ability to directly compare your scores from the 2004 self assessment with prior scores obtained using the 2000 tool.

As with the 2000 self assessment tool, several national organizations have endorsed the **2004 ISMP Medication Safety Self Assessment® for Hospitals** and offered their ongoing support of this endeavor. All of our endorser's logos appear on the back cover of this document. Your organization's Chief Executive Officer has received a letter from the president of AHA to introduce the 2004 self assessment and encourage participation. ISMP, HRET, and the other endorsing organizations also encourage you to participate in this very important project by completing the 2004 self assessment as directed in the instructions, and submitting your findings anonymously to ISMP.

As with the data submitted by almost 1,500 hospitals during 2000, we will use the aggregate findings to plan curricula and other means of support to assist you in enhancing medication safety. Additionally, we plan to compare the aggregate data provided to ISMP in 2000 and 2004 to evaluate our nation's progress in medication safety over the past four years. While there is still much work to do, I am confident that we have come a long way together on this important journey.

Sincerely,

Michael R. Cohen, RPh, MS, ScD
President Institute for Safe Medication Practices

About the Institute for Safe Medication Practices (ISMP)

The Institute for Safe Medication Practices (ISMP), based in suburban Philadelphia, is the nation's only 501c (3) nonprofit organization devoted entirely to medication error prevention and safe medication use. The organization is known and respected worldwide as the premier resource for impartial, timely, and accurate medication safety information.

The Institute's medication error prevention efforts began in 1975 with a groundbreaking and continuing column in *Hospital Pharmacy* that increases understanding and educates healthcare professionals and others about medication error prevention. ISMP was formally incorporated as a nonprofit organization in 1994.

Today, a continuously expanding core of knowledge in medication safety fuels the Institute's initiatives to improve the medication use process. These initiatives, which are built upon a non-punitive approach and system-based solutions, fall into five key areas: knowledge, analysis, education, cooperation, and communication.

More than 25 years ago, ISMP started a cornerstone of its medication error prevention efforts -- a voluntary practitioner error-reporting program to learn about errors happening across the nation, understand their causes, and share "lessons learned" with the healthcare community. Each year, the national Medication Errors Reporting Program (MERP), operated by the United States Pharmacopeia (USP) in cooperation with ISMP, receives error reports from healthcare professionals. In addition, ISMP's wholly owned corporate subsidiary, Med-E.R.R.S (Medical Error Recognition and Revision Strategies), works directly and confidentially with the pharmaceutical industry to prevent errors that stem from confusing or misleading naming, labeling, and packaging.

The Institute's other initiatives include publishing four medication safety newsletters for healthcare professionals and consumers that reach nearly a million readers; presenting frequent educational programs, including teleconferences, on current medication use issues; offering posters, videos, patient brochures, books and other resources; and providing confidential consultation services to healthcare systems to proactively evaluate medication systems or analyze medication-related sentinel events. ISMP collaborates on a continuing basis with a wide variety of healthcare practitioners, legislative and regulatory bodies, healthcare institutions, healthcare professional organizations, regulatory and accrediting agencies, consumers, employer and insurer groups, and the pharmaceutical industry.

As an independent watchdog organization, ISMP receives no advertising revenue and depends entirely on charitable donations, educational grants, newsletter subscriptions, and volunteer efforts to pursue its lifesaving work. For more information, visit ISMP online at **www.ismp.org**.

Acknowledgements

Funding Source

ISMP, AHA, and HRET thank the ***Commonwealth Fund*** for their continued support of our efforts to improve medication safety in America's hospitals. The Commonwealth Fund provided financial support for both the 2000 ISMP Medication Safety Self Assessment® and the **2004 ISMP Medication Safety Self Assessment® for Hospitals**. The Commonwealth Fund also provided a grant to develop and disseminate the Pathways for Medication Safety™ tools, which have helped hospitals tackle needed improvements identified in the 2000 self assessment.

Advisory Panel

ISMP, AHA, and HRET thank the following members of our volunteer Advisory Panel, who helped inform the content of the **2004 ISMP Medication Safety Self Assessment® for Hospitals**.

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We also wish to thank the staff at ISMP, AHA, HRET and other individuals who have contributed their time and effort to make the 2004 self assessment possible.

2004 ISMP Medication Safety Self Assessment® for Hospitals

The 2004 ISMP Medication Safety Self Assessment® for Hospitals is designed to:

Heighten awareness of distinguishing characteristics of a safe hospital medication system; create a new baseline of hospital efforts to enhance medication safety in 2004; and compare these findings with the results from the 2000 ISMP Medication Safety Self Assessment®. [1]

The self assessment is divided into ten key elements that significantly influence safe medication use. Each element is defined by one or more core characteristics of a safe medication system. Self-assessment items are provided to help you evaluate your success with achieving each core characteristic.

The 2004 ISMP Medication Safety Self Assessment® for Hospitals and its components are copyrighted by ISMP and may not be used in whole or in part for any other purpose or by any other entity except for self assessment of medication systems by US hospitals as part of their ongoing quality improvement activities. The aggregate results of this assessment will be used for research and education purposes only.

ISMP is not a standards setting organization. As such, the self-assessment characteristics in this document are not purported to represent a minimum standard of practice and should not be considered as such. In fact, some of the self-assessment criteria represent innovative practices and system enhancements that are not widely implemented in most hospitals today. However, their value in reducing errors is grounded in scientific research and expert analysis of medication errors and their causes.

1. Smetzer JL, Vaida AJ, Cohen MR, Tranum D, Pittman MA, Armstrong CW. Findings from the ISMP Medication Safety Self Assessment® for Hospitals. *Jt Comm J Qual Safety.* 2003;29:586-597.

Key Definitions

(For purposes of this self assessment)

Additional definitions appear on pages 39 and 40 of this booklet and are designated throughout the text with SMALL CAPITAL LETTERS.

Floor stock

Medications that are not labeled or stored for a specific patient that are available outside the pharmacy. This would include medications stored in medication rooms, storage cabinets, and automated dispensing cabinets for potential administration to various patients.

High-alert medications (or drugs)

Medications that have a high risk of causing serious injury or death to a patient if they are misused. Errors with these products are not necessarily more common but their results are more devastating. Examples of high-alert medications include heparin, warfarin, insulin, chemotherapy, concentrated electrolytes, opiate narcotics, neuromuscular blocking agents, thrombolytics, and adrenergic agonists.
(A complete list can be found at **www.ismp.org**.)

Implemented

Accomplished or achieved in practice, not just in policy: to carry into effect.

Medication (or drug)

Medication includes: prescription medications; sample medications; herbal remedies; vitamins; nutraceuticals; over-the-counter drugs; vaccines; diagnostic and contrast agents used on or administered to persons to diagnose, treat, or prevent disease or other abnormal conditions; radioactive medications; respiratory therapy treatments; parenteral nutrition; blood derivatives; intravenous solutions (plain, with electrolytes and/or drugs); and any product designated by the Food and Drug Administration (FDA) as a drug. The definition of medication does not include enteral nutrition solutions (which are considered food products), oxygen, and other medical gases.

Practitioner

A licensed healthcare professional such as a physician, physician assistant, nurse anesthetist, nurse practitioner, nurse, pharmacist, or respiratory therapist.

Instructions for Conducting the Self Assessment

It is important that each hospital in a multihospital system complete the self assessment individually.

1. **Establish a multidisciplinary team** consisting of, or similar to, the following:
   - CEO or senior vice president
   - chief medical officer
   - nurse executive
   - director of pharmacy
   - chief information officer
   - risk management and quality improvement professionals
   - at least two staff nurses from different specialty areas
   - at least two staff pharmacists (one clinical and one distribution)
   - at least one active staff physician

   Other hospital staff may need to join the core team for evaluation of certain sections of the self assessment. For example, you may want to invite a biomedical engineering staff member to the meeting in which key element VI - *Medication Device Acquisition, Use, and Monitoring* is being discussed.

   Your team should be provided with sufficient time to complete the self assessment and be charged with responsibility to evaluate, accurately and honestly, the current status of medication practices in your facility. Because medication use is a complex, interdisciplinary process, the value and accuracy of the self assessment is significantly reduced if it is completed by a single discipline involved in medication use. Participants in the 2000 self assessment reported that it took three team meetings of approximately one hour each to complete the self assessment.

2. **Read and review the self assessment in its entirety (including the directions) before beginning the assessment process**. The team leader should visit **www.ismp.org** and print a copy of the Frequently Asked Questions (FAQs) associated with the self assessment and the PDF version of the assessment tool. Items with specific related FAQs will be noted in the assessment grid. Make copies of the self assessment and the FAQs and send them to team members for review before the first team meeting.

3. **Complete the "Demographic Information."** The team leader should verify the responses in this section with hospital administration as discussed in the FAQs.

4. **Convene the team**.

5. **Discuss each core characteristic and evaluate the hospital's current success with implementing the self-assessment items**. As necessary, investigate and verify the level of implementation with other healthcare practitioners outside your team. When a consensus on the level of implementation for each self-assessment item has been reached, place a check mark (✓) in the appropriate column using the following scoring key and guidelines:

Scoring Key

A	***There has been no activity to implement this item.***
B	***This item has been formally discussed and considered, but it has not been implemented.***
C	***This item has been partially implemented in some or all areas of the organization.***
D	***This item is fully implemented in some areas of the organization.***
E	***This item is fully implemented throughout the organization.***

Important Scoring Guidelines

For all self-assessment items: Unless otherwise stated, self-assessment items refer to medications prescribed, dispensed, and administered to all inpatients and outpatients typically seen in most hospitals, such as patients admitted to the emergency department and ambulatory surgery/procedure units.

For new items in the 2004 self assessment: Thirty-seven new items were added to the 2004 self assessment, each distinguished by the letter "N" which precedes the item number (e.g., N1, N2). All new items are numbered consecutively, but each appears under the core characteristic to which it applies. New items should be scored using the same key and guidelines applied to all other self-assessment items. After submitting data to ISMP, scores for the new items will appear as a subtotal under the corresponding core characteristic to allow comparison of the original items to scores you achieved if you completed the 2000 self assessment.

For self-assessment items with multiple components: Full implementation (score D or E) is evidenced only if all components are present in some or all areas of the organization. If only one or some of the components have been partially or fully implemented in some or all areas of the organization, self-assessment scores should not exceed level "C."

For self-assessment items with two or more distinct elements, each separated with the word "OR," and labeled (a) and (b): Answer either part (a) OR (b), but not both.

For self-assessment items that are separated into sub-items: In several instances, items from the 2000 self assessment were split into two separate items to promote more accurate assessment (e.g., item 1 in the 2000 self assessment now appears as items 1(1) and 1(2) in the 2004 self assessment). Each sub-item should be scored independently using the same key and guidelines applied to all other self-assessment items. After submitting data to ISMP, scores for items that are separated into sub-items will be presented both independently and together to allow comparison to any scores you achieved if you completed the 2000 self assessment.

For self-assessment items that offer an option for "Not Applicable": Select "Not Applicable" only if the item does not correspond to <u>any</u> services you provide in your hospital, either to inpatients or outpatients. Participants will <u>not</u> be penalized for selecting "NOT APPLICABLE" when appropriate for their hospital.

6. **Repeat the process for all self-assessment items**.

7. **If you have questions**, refer to the Frequently Asked Questions section of our website (**www.ismp.org**). Contact ISMP at selfassess@ismp.org or call (215) 947-7797 during usual business hours (Eastern Daylight-Saving Time) if you need additional assistance.

8. **Transfer the password found on the back cover of the booklet mailed to you to the space provided after the last self-assessment item** (page 38) to facilitate data submission to ISMP.

9. **Go to www.ismp.org and click on the link that identifies the self assessment and begin to enter your data online**. See page 7 for further information on submitting online.

10. **Submit data from the completed self assessment to ISMP by September 24, 2004**. See data submission instructions on page 7.

DATA SUBMISSION AND INFORMATION SECURITY

We encourage each individual hospital to submit the results of their completed self assessment using our special web-based survey form, available on the ISMP website at: **www.ismp.org**. Click on the link on our home page that identifies this project. The site can be accessed from any computer with Internet capability. The web-based survey form is a large file and may take a few minutes to access.

After data is entered into the survey form, a prompt will appear for password entry. Each self-assessment booklet that was mailed contains a unique password in the lower right-hand corner of the inside back cover. The password is necessary to allow data submission only once for each participating hospital. Passwords cannot be traced back to an individual hospital. After the password has been entered and accepted, data can be submitted to ISMP. The special, web-based survey tool will immediately download the information into a database maintained solely by ISMP.

After data submission, the program will prompt you to print the completed survey form on your printer. The printed survey form will include numerical, weighted scores for each of the self-assessment items, subtotals for each of the core characteristics and key elements, and a total score for the self assessment. These weighted scores and your password should be maintained in a safe location and can be used later to compare your hospital's findings with aggregate data from other demographically similar hospitals. In addition, your printed survey form will subtotal your scores in a format that will allow you to compare your 2004 scores with scores you achieved if you completed the 2000 self assessment. New items will be listed and scored separately under each core characteristic. If you misplace your **2004** weighted survey scores after submitting data to ISMP, you can reenter your password to reprint a report. However, you will not be able to make any changes to the data you originally submitted.

Please note: weighted scores are not visible on the web-based survey form during data entry. Hospitals can obtain their weighted scores only after they submit the self-assessment data to ISMP. Without weighted scores, hospitals will be unable to compare their experiences to other hospitals that are participating in this project.

If hospitals do not have Internet access, the completed self assessment can be mailed to the Institute for Safe Medication Practices, 1800 Byberry Road, Suite 810, Huntingdon Valley, PA 19006. ISMP staff will enter the information into the database. If the name of a designated person and mailing address are included with the self assessment, ISMP will print the survey form with the numerical, weighted scores, and mail it (along with the original assessment) to that individual at the hospital.

Detailed instructions for submitting data to ISMP are available on our website and can be printed for reference before or during the data entry process.

EXPLANATION OF WEIGHTED SCORES

To determine a weight for each self-assessment item, ISMP staff used a standard process to independently evaluate each item to determine its impact on patient safety and its ability to sustain improvement.

Therefore, the self-assessment items with the highest weight are those that:

- Target the system, not the workforce;
- Do not rely heavily upon human memory and vigilance;
- Demonstrate through scientific evidence that they are effective in reducing serious medication errors;
- Solve several medication-error related problems at the same time;
- Prevent errors with high-alert medications that have the greatest potential to cause patient harm;
- Simplify complex, error-prone processes;
- Safeguard high-risk patient populations; and
- Make it hard for healthcare practitioners to do their job wrong, and easy for them to do it right.

Some of the self-assessment items are weighted in a way that result in no numerical score (zero value) unless there is full implementation of the item throughout the organization.

ACCESS TO COMPARATIVE REPORTS

ISMP will prepare and publish on our website detailed aggregate comparative reports of the level of medication safety practices in US hospitals based on these data. **Once the data collection period has ended in September 2004, hospitals that submitted data to ISMP will be able to immediately access these aggregate comparative reports using the same password they used during the data submission process**. In addition, scientific analysis of the data will be completed early in 2005 and the results will be submitted for publication in a peer-reviewed journal.

Demographics

All questions in the demographics section must be completed unless otherwise noted as optional. We would hope that all questions are completed in order for us to better analyze the aggregate data and provide more concise demographic comparisons for hospitals.

1 **Please check the one category that best describes the number of inpatient beds currently set up and staffed for use in your hospital.**

☐ Fewer than 100 beds
☐ 100 to 299 beds
☐ 300 to 499 beds
☐ 500 beds and over

2 **Please check the one category that best describes the type of organization that is responsible for establishing policy for the overall operation of your hospital.**

☐ State or local government
☐ Non-government, not-for-profit
☐ Investor-owned, for-profit
☐ Military
  To what branch of the service does your hospital belong?
  ☐ Army
  ☐ Navy
  ☐ Air Force
☐ Veterans' Affairs
☐ US Public Health Service
☐ Other: _____

3 **Please check the one category that best describes the type of service that your hospital provides to the majority of its admissions.**

☐ General medical and surgical
☐ Specialty: Psychiatric
☐ Specialty: Rehabilitation
☐ Specialty: Pediatric
☐ Specialty: Oncology
☐ Other: _____

4 **Does your hospital also provide the following services? (check all that apply)**

☐ Oncology services (check even if chemotherapy is administered infrequently)
☐ Pediatrics services (check even if pediatric care is provided only in the emergency department and/or outpatient surgery)
☐ Neonatal intensive care unit (check for any level of service)
☐ Trauma services (check for any level of service)

5 **Does your hospital have a PHYSICIAN residency-training program that has been approved by the Accreditation Council for Graduate Medical Education?**

☐ Yes
  In what setting is the physician residency-training program carried out?
  ☐ Community teaching hospital
  ☐ Academic medical center
☐ No

6 **Does your hospital have a PHARMACY residency-training program that has been accredited by the American Society of Health-System Pharmacists?**

☐ Yes
  How many pharmacy residents do you anticipate in your residency-training program during 2004?
  ☐ 1-2
  ☐ 3-5
  ☐ Greater than 5
☐ No

7 Is your hospital one of several hospitals in a larger healthcare system with common ownership and/or governance?

☐ Yes
- How many hospitals comprise your health system?
  - ☐ 2-5
  - ☐ 6-10
  - ☐ Greater than 10

☐ No

8 Through which group/purchasing organization or alliance does your hospital purchase its medications?

☐ None
☐ Amerinet
☐ Broadlane
☐ Consorta
☐ Department of Defense
☐ HCA
☐ HSCA
☐ Premier
☐ Veteran's Affairs
☐ VHA/Novation
☐ UHC/Novation
☐ Other:

_____

9 Please check the one category that best describes the location of your hospital.

☐ Urban
☐ Rural
- Is your hospital a critical access hospital? (OPTIONAL)
  - ☐ Yes
  - ☐ No

10 How are pharmacy services managed in your organization?

☐ Internally
☐ Externally
- Which company manages your pharmacy services? (OPTIONAL)
  - ☐ CardinalHealth
  - ☐ McKesson Medication Management
  - ☐ Pharmacy Systems, Inc.
  - ☐ Other: _____

11 Please tell us in which state/territory you are located.

_____

State (or US military foreign)

12 Did you complete the 2000 ISMP Medication Safety Self Assessment® at any time prior to 2004? (OPTIONAL)

☐ Yes
- Did you submit your results to ISMP during the initial 2000 data collection period? (OPTIONAL)
  - ☐ Yes
  - ☐ No

☐ No

13 Have you utilized the *Pathways for Medication Safety*™ tools? (OPTIONAL)

☐ Yes
- Which tools have you used (check all that apply)? (OPTIONAL)
  - ☐ Leading a Strategic Planning Effort
  - ☐ Looking Collectively at Risk
  - ☐ Assessing Bedside Bar-Coding Readiness

☐ No

A	No activity to implement
B	Considered, but not implemented
C	Partially implemented in some or all areas
D	Fully implemented in some areas
E	Fully implemented throughout

SELF-ASSESSMENT ITEMS

		A	B	C	D	E
Core characteristic #1	*Essential patient information is obtained, readily available in useful form, and considered when prescribing, dispensing, and administering medications.*					
1(1)	Prescribers and nurses can easily and electronically access inpatient laboratory values while working in their respective inpatient locations.					
1(2)	Pharmacists can easily and electronically access inpatient laboratory values while working in their respective inpatient locations.					
2(1)	Prescribers and nurses can easily and electronically access outpatient laboratory values while working in their respective outpatient locations.					
2(2)	Pharmacists can easily and electronically access outpatient laboratory values while working in their respective outpatient locations.					
3(1)	Prescribers and nurses can easily and electronically access both inpatient and outpatient laboratory values while working in their respective inpatient and outpatient locations.					
3(2)	Pharmacists can easily and electronically access both inpatient and outpatient laboratory values while working in their respective inpatient and outpatient locations.					
4	A pharmacist or prescriber routinely adjusts doses of medications that may be toxic in patients with renal or liver impairment.					
FAQ 5	A nurse, pharmacist, or prescriber verifies that any patient allergy information entered into the computer system is clinically accurate, and that the names of allergens are spelled correctly and properly coded to allow for pharmacy computer screening.					
6	Orders cannot be entered into the pharmacy computer system until the patient's allergies have been properly entered and coded (patient allergies is a required field).					
7	The pharmacy computer system automatically screens and detects drugs to which patients may be allergic (including cross allergies) and provides a clear warning to staff during order entry.					

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SELF-ASSESSMENT ITEMS		A	B	C	D	E
8a	**In hospitals WITHOUT computerized prescriber order entry (CPOE) systems**: Distinctive and visible prompts that list patient allergies are included on all pages of hard-copy order forms as a visible reminder to those prescribing drugs. (Prescribers initially list the allergies on order forms and patient care unit staff consistently transfer the information to subsequent order forms when replenishing charts with blank copies of order forms.)					
OR	**OR**					
8b	**In hospitals WITH computerized prescriber order entry (CPOE) systems**: Prescribers are provided with an electronic alert if a drug is entered to which a patient is allergic.					
9	Allergies are listed and clearly visible on all pages (or screens) of medication administration records (MARs), including those for new admissions, as a reminder during drug administration.					
10	Patients who receive MODERATE SEDATION, patient-controlled analgesia (PCA), or other IV infusions to treat pain are monitored for signs of oversedation at least every 4 hours by evaluating the patient's level of alertness and vital signs (including rate and quality of respirations).					
11	MACHINE-READABLE CODING (e.g., bar coding) that utilizes at least two identifiers of the patient (e.g., name and birth date, name and medical record number) is used to verify patient identity during drug administration.					
12	Basic information (e.g., patient name, hospital unit location, birth date, physician) is clear and easily visible on orders transmitted to the pharmacy via addressograph imprints, stickers on hard copy or facsimile, or is sent electronically.					
FAQ 13	Information about the patient's comorbid and/or chronic conditions (e.g., hypertension, diabetes, renal or liver impairment, pregnancy, lactation) is obtained, communicated to pharmacists, and available in the pharmacy computer system for reference.					
14	The computer system used for medication order entry is directly INTERFACED with the laboratory system to automatically alert practitioners to the need for potential drug therapy changes.					
15	Medication orders cannot be entered into the pharmacy computer system until the patient's weight has been entered (weight is a required field).					

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SELF-ASSESSMENT ITEMS

		A	B	C	D	E
	NEW SELF-ASSESSMENT ITEMS					
N1	Patient selection criteria have been established for using PCA, which exclude patients who will not be able to deliver the medication themselves due to their level of consciousness, physiological condition, or limited intellectual capacity. *Scoring guideline: Choose NOT APPLICABLE if you do not offer PCA in your hospital.*					
		NOT APPLICABLE				
N2	Enhanced monitoring (e.g., capnography, apnea alarms) is required for patients who receive PCA or other IV infusions to treat pain whenever risk factors such as obesity or low body weight, concomitant use of medications that potentiate opiates, or preexisting conditions such as asthma or sleep apnea exist, and/or when NURSE-CONTROLLED ANALGESIA is employed.					
N3	Only trained healthcare workers (not parents or other care providers) administer oral sedatives (e.g., midazolam, chloral hydrate) to children in preparation for a procedure (e.g., MRI), after the child has arrived at the facility to ensure proper monitoring of neurologic and respiratory status, and availability of resuscitation equipment in the event of respiratory depression. *Scoring guideline: Choose NOT APPLICABLE if care is not provided to pediatric patients, even in the emergency department, outpatient surgery, or outpatient diagnostics.*					
		NOT APPLICABLE				
FAQ N4	Archived allergy information from a prior admission is readily available for pharmacists to review (e.g., pop-up screens during entry of the first set of orders) when a patient is readmitted, but the information does not automatically populate the allergy field before practitioner verification.					
N5	Allergies are prominently visible on each patient-specific screen for all electronically displayed medication systems and records (e.g., CPOE screens, pharmacy computer screens accessed during order entry, automated dispensing cabinet screens, electronic MARs).					

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SELF-ASSESSMENT ITEMS

		A	B	C	D	E
Core characteristic #2	*Essential drug information is readily available in useful form and considered when ordering, dispensing, and administering medications.*					
16	A complete drug history, including prescription and over-the-counter medications, vitamins, herbal products, and illicit drugs is obtained on every inpatient and outpatient upon admission or initial encounter (including during the pre-admission process).					
17	All patient care areas where medications are administered are supplied with updated drug reference texts, which includes information on herbal and alternative medicines, annually and all outdated texts are removed from use. (Texts are outdated after one year of publication or whenever the next edition is available.)					
18(1)	Pharmacists and pharmacy technicians have easy access (e.g., on each computer terminal) to user-friendly, up-to-date, computerized drug information systems (e.g., MicroMedex, Facts and Comparisons), which include information on herbal and alternative medicines, in the pharmacies.					
18(2)	Prescribers and other non-pharmacy practitioners have easy access (e.g., on each computer terminal, palm devices) to user-friendly, up-to-date, computerized drug information systems (e.g., MicroMedex, Facts and Comparisons), which include information on herbal and alternative medicines, in all patient care areas.					
19	Current protocols, guidelines, dosing scales, and/or checklists for high-alert drugs (e.g., chemotherapy, anticoagulants, opiates, insulin, electrolyte replenishment with potassium, magnesium, sodium, and phosphate) are readily accessible to prescribers, pharmacists, and nurses, and used when high-alert drugs are prescribed, dispensed, and administered.					
20	MAXIMUM DOSES for high-alert drugs such as chemotherapy, electrolytes, and opiates have been established and posted, disseminated, and/or included on preprinted order forms as reference for prescribers, pharmacists, pharmacy technicians, and nurses.					
21	All internally developed drug information tools (e.g., pocket references, drug information cards, preprinted order forms, protocols or checklists, patient drug education materials, compounding recipes) undergo a formal approval process before use, which includes at a minimum, review by a pharmacist and those who will be using the tool.					
22	Pharmacists regularly (e.g., one 8-hour shift per 24 hours) work directly in inpatient care units performing clinical activities such as reviewing patient records and drug orders, attending interdisciplinary rounds, providing input into the selection and administration of drugs, and monitoring the effects of medications on patients.					

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A	No activity to implement
B	Considered, but not implemented
C	Partially implemented in some or all areas
D	Fully implemented in some areas
E	Fully implemented throughout

SELF-ASSESSMENT ITEMS		A	B	C	D	E
23	Pharmacists regularly (e.g., one 8-hour shift per 24 hours) work directly in outpatient care units (e.g., ED, ambulatory surgery, clinics) performing clinical activities such as reviewing patient records and drug orders, attending interdisciplinary rounds, providing input into the selection and administration of drugs, and monitoring the effects of medications on patients.					
FAQ 24	The pharmacy computer system performs dose range checks and warns practitioners about overdoses and underdoses for all high-alert drugs and for most other medications.					
FAQ 25	Pharmacy staff routinely tests the computer system to assure that MAXIMUM DOSE alerts are present for high-alert drugs and builds alerts for those that are not present.					
26	A designated pharmacist routinely reviews, for quality improvement purposes, reports of selected computer warnings (e.g., MAXIMUM DOSE alerts, serious drug interactions, allergy alerts) that are overridden.					
27	Drug information updates for medication order entry systems (e.g., pharmacy system, CPOE system) are received from a database vendor and loaded at least quarterly. *Scoring guideline: Do not choose level D or E if updates are received or loaded less frequently than quarterly.*					
FAQ 28	Except in emergent lifesaving situations, all inpatient drug orders are entered into a computer and screened electronically against the patient's current clinical profile for contraindications, interactions, and appropriateness of doses before drugs are administered.					
29	The information technology system maintains (for at least five years) ongoing patient profiles with basic demographic information (including allergies) and drug therapy records for each episode of care, which are readily accessible to pharmacists when a patient is readmitted. *Scoring guideline: Do not choose level D or E if information is purged more frequently than every five years.*					
30	Inpatient and outpatient pharmacy computer systems are linked so that comprehensive patient and drug information is available to practitioners wherever (inpatient or outpatient) the patient receives care in the hospital system. *Scoring guideline: Choose NOT APPLICABLE if your hospital pharmacy does not prepare any outpatient prescriptions and your hospital does not have an outpatient pharmacy.*					
		NOT APPLICABLE				

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SELF-ASSESSMENT ITEMS

		A	B	C	D	E
	NEW SELF-ASSESSMENT ITEMS					
N6	The pharmacy computer system (and prescriber order entry system if in use) requires practitioners to enter an explanation upon overriding a serious alert (e.g., exceeding a MAXIMUM DOSE for a high-alert drug, a serious drug interaction, an allergy).					
N7	Practitioners have confidence in the process used to verify (reconcile) the medications that the patient had been taking at home before admission and compare them to the medications prescribed upon admission and discharge.					
N8	Pharmacy interventions in response to a potentially harmful medication order are immediately communicated to the nurses who provide care to the patient to reduce frustrations with delays and halt the potential administration of the medication from floor stock while awaiting clarification of the order.					
N9	Minimum and MAXIMUM DOSE limits have been established for parenteral medications titrated to effect (e.g., insulin infusions, dopamine, dobutamine), which when approached (fall below minimum doses or exceed MAXIMUM DOSES), require notification of the prescriber for further instructions regarding the dose or possible discontinuation of the medication.					
N10	Patients that require contrast media (e.g., radiology procedures) are specifically asked about allergies to iodine (including shellfish); and if an allergy exists, a standardized pre-procedure protocol (e.g., prescriber notification, pre-medications, use of alternative contrast media) is implemented before the procedure if performed.					
N11	High-alert drugs used within the organization have been defined, identified, and communicated to all practitioners who prescribe, dispense, and administer the products.					

Core characteristic #3 *A controlled drug formulary system is established to limit choice to essential drugs, minimize the number of drugs with which practitioners must be familiar, and provide adequate time for designing safe processes for the use of new drugs added to the formulary.*

		A	B	C	D	E
31	The hospital formulary contains almost no duplication of generic equivalents.					
32	The hospital formulary contains minimal duplication of therapeutically equivalent products.					
FAQ 33	Before a decision is made to add a drug to the formulary, the potential for error with that drug is investigated in the literature, documented in the drug monograph submitted to the PHARMACY AND THERAPEUTICS COMMITTEE (or a similar voting body), and addressed.					

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E	Fully implemented throughout

SELF-ASSESSMENT ITEMS		A	B	C	D	E
34	When drugs with heightened error potential are identified during the formulary addition process, safety enhancements such as standardized order forms, prescribing guidelines, check systems, reminders, and/or limitations on use, administration, and storage of drugs are established before initial use.					
35	After formulary approval of drugs on the market for less than one year, a pharmacist is assigned responsibility to search the literature for at least a six-month period to identify published errors or adverse drug reactions that may have been reported since product launch, and safety enhancements are established as necessary or the drug is removed from the formulary.					
36	A Drug Use Evaluation (DUE) is initiated immediately after introducing a drug for hospital use, that has been identified as having heightened error potential to monitor compliance and success with established safeguards.					
FAQ 37	Non-formulary products are used only when therapeutically necessary and appropriate (e.g., potential adverse effects if the medication is changed during hospitalization, during a drug shortage).					
	NEW SELF-ASSESSMENT ITEMS					
FAQ N12	The hospital's ability to adequately monitor and manage the anticipated adverse effects of a medication is investigated, documented, considered by the PHARMACY AND THERAPEUTICS COMMITTEE (or other interdisciplinary team), and addressed before adding the medication to the formulary.					
N13	The pharmacy computer is tested after adding a new drug to verify that important clinical warnings (e.g., serious drug interactions, allergies, cross allergy alerts, MAXIMUM DOSE limits) are functional; and if a serious alert is not yet functional through the drug information system vendor, a temporary free text alert is added so that it appears on the screen during order entry.					

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Communication of Drug Orders and Other Drug Information

A	No activity to implement
B	Considered, but not implemented
C	Partially implemented in some or all areas
D	Fully implemented in some areas
E	Fully implemented throughout

Self-Assessment Items

		A	B	C	D	E
Core characteristic #4	*Methods of communicating drug orders and other drug information are standardized and automated to minimize the risk for error.*					
FAQ 38	Prescribers enter medication orders into a computer system that is directly INTERFACED with the pharmacy computer system. *Scoring guideline: Do not choose D or E if prescribers enter orders into a computer system that is not directly* INTERFACED *with the pharmacy computer system.*					
39a	**In hospitals WITH computerized prescriber order entry (CPOE) systems**: The system warns prescribers about unsafe orders (e.g., allergies, MAXIMUM DOSES, interactions) during input and guides the use of formulary drugs and established protocols/clinical pathways.					
OR	**OR**					
39b	**In hospitals WITHOUT computerized prescriber order entry (CPOE) systems**: Preprinted order forms are used to guide prescribing of routine medications for preoperative and postoperative patients, for inpatient critical care admissions, and for oncology patients.					
40	A list of prohibited, ERROR-PRONE ABBREVIATIONS (e.g., u, qd, MSO4, certain chemotherapy regimen acronyms) and unacceptable methods of expressing doses (by volume or number of tablets instead of weight; using trailing zeros for whole number doses; not using a leading zero for doses less than one) is established for all communication of drug information or orders (including in handwritten or preprinted orders, MARs, and in electronic formats as well as computer screens).					
41	Compliance with safe methods of communicating the drug name, dose, route, and frequency (e.g., on handwritten and preprinted orders, order entry screens, computer-generated drug labels, drug storage bin labels) is monitored through quality improvement efforts.					
42	Upon admission to the hospital or transfer to a different level of care within the hospital, prescribers write (or electronically enter) complete orders for all drug therapy. Orders to "resume the same medications" or to "take medications from home" are not accepted.					

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Communication of Drug Orders and Other Drug Information *continued*

A	No activity to implement
B	Considered, but not implemented
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E	Fully implemented throughout

Self-Assessment Items		A	B	C	D	E
43	Verbal or telephone orders from prescribers that are onsite in the hospital are used only in emergencies or during sterile procedures where ungloving would be impractical.					
44	Verbal or telephone orders are never accepted for oral or parenteral chemotherapy (including chemotherapeutic agents used for non-oncologic indications). *Scoring guideline: Score NOT APPLICABLE if you do not offer chemotherapy (including oral agents) to patients.*					
		NOT APPLICABLE				
45	When verbal or telephone orders must be taken, the nurse or pharmacist receiving the order immediately writes it down and reads it back to the prescriber for verification.					
46	Computer-generated or electronic MARs that share a common database with the pharmacy system are used to guide and document medication administration.					
47	MARs are taken to the patient's bedside for reference during drug administration.					
48	Nurses and pharmacists have a clear and effective process to follow to resolve conflicts when prescribers and/or supervisors do not agree with their expressed concerns about the safety of an order.					
FAQ 49	In non-urgent situations, medications being considered for uncommon uses or in atypical doses are approved through a formal review process (e.g., Pharmacy and Therapeutics Committee) before prescribers order the drug.					
FAQ 50	In urgent situations, a timely informal process is in place to review medications being considered for uncommon uses or in atypical doses before pharmacists dispense and/or nurses administer the drug.					
	NEW SELF-ASSESSMENT ITEMS					
N14	Upon inpatient admission to the hospital, all medications administered in the emergency department or other outpatient settings (e.g., cardiac catheterization lab, radiology) are immediately communicated to the pharmacy and entered (or already available) in the pharmacy computer system in a manner that facilitates an automated alert for duplicate therapy or a drug interaction when medications prescribed upon admission are profiled.					
N15	Prescribers have easy access to an electronic or computer-generated medication profile for each patient (which lists all current and recently discontinued medications), and they review this profile on a daily basis to verify the accuracy of order interpretation and as a reference when planning the patient's discharge medications.					

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IV Drug Labeling, Packaging, and Nomenclature

A	No activity to implement
B	Considered, but not implemented
C	Partially implemented in some or all areas
D	Fully implemented in some areas
E	Fully implemented throughout

Self-Assessment Items

		A	B	C	D	E
Core characteristic #5	*Strategies are undertaken to minimize the possibility of errors with drug products that have similar or confusing manufacturer labeling/packaging and/or drug names that look and/or sound alike.*					
51	*The ISMP Medication Safety Alert!®* and/or other current literature is regularly reviewed to identify drug labeling, packaging, and nomenclature problems and action is taken to prevent errors with these drugs.					
52	The package and label of new drugs that are being considered for formulary addition are examined to identify any potential for confusion.					
53	Products with look-alike drug names and packaging that are known by the hospital staff to be problematic are stored separately and not alphabetically.					
54	Computer MNEMONICS are arranged to prevent look-alike drug names from appearing on the same computer screen; or look-alike drug names are clearly distinguished in a way that differentiates them (e.g., use of TALL-MAN LETTERS) if they appear sequentially on the same computer screen.					
55	Different manufacturers are sought for products with labeling/packaging that look like other products to help differentiate the labels/packages.					
56	Alerts are built into the computer software to remind practitioners about problematic drug names (including drugs with multiple suffixes such as XL, SR, ER, CD, LA), packaging, or labeling.					
57	Auxiliary warnings or other label enhancements (e.g., TALL-MAN LETTERS to accentuate differences in look-alike drug name pairs) are used on packages and storage bins of drugs with problematic names, packages, and labels.					
58	Prescribers include the clinical indication for all ambulatory patient drug prescriptions and inpatient "prn" drug orders to help distinguish those with look-alike names.					
Core characteristic #6	*Readable labels that clearly identify drugs are on all drug containers, and drugs remain labeled up to the point of actual drug administration.*					
59	Pharmacy computer systems produce clear and distinctive labels free of ERROR-PRONE ABBREVIATIONS and nonessential information (e.g., computer MNEMONICS and other pharmacy codes).					
60	At a minimum, all drug containers taken to the bedside (including syringes of line flushes and other medication prepared from vials and ampuls on patient care units outside of the patient's room) are labeled with at least the drug name, strength, and dose.					

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Drug Labeling, Packaging, and Nomenclature *continued*

A	No activity to implement
B	Considered, but not implemented
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E	Fully implemented throughout

Self-Assessment Items		A	B	C	D	E
61	The containers of drugs dispensed from the pharmacy for specific patients are labeled with the drug's name, strength, dose, as well as the route of administration, patient name, and location. Exception: Small, UNIT-DOSE containers of PATIENT-SPECIFIC MEDICATIONS. However, these should be dispensed in an outer container, such as an envelope or drug bin/drawer, that is labeled with the patient's name and location.					
62	Labels affixed to commercially available IV infusion containers are correctly positioned to allow observation of the manufacturer's label, which identifies the base solution and the total amount and concentration of any additives.					
63	Labels affixed to pharmacy-prepared IV admixture containers identify the total volume of solution in the container, the base solution, and the concentration or total amount of each drug additive in the container.					
64	All medications are dispensed to patient care units (including neonatal, pediatric, and critical care units) in labeled, ready-to-use UNIT-DOSES, or in labeled, UNIT-OF-USE containers (excluding topical preparations and antacids).					
65	UNIT-DOSE oral medications remain in the manufacturer's (or pharmacy's) packaging up to the point of actual drug administration at the bedside so a final check of the drug against the MAR can be accomplished.					
66	Sterile markers and labels, or preprinted labels, are opened onto the sterile field during all clinical/surgical procedures and all containers (including syringes, basins, or other vessels used to store drugs) are labeled even when just one product/solution is present.					
	NEW SELF-ASSESSMENT ITEMS					
N16	Medications brought into the health facility by a patient or family member are not administered to the patient until an authorized prescriber has approved their use and a pharmacist (or other qualified practitioner when a pharmacist is unavailable) has visually inspected the medications and containers to verify the drugs' identity and proper labeling and packaging to guide safe drug administration.					
N17	Syringes of medications prepared for use during anesthesia are labeled with the drug name, strength/concentration, and date or time of expiration.					
N18	Doses that require less than or more than a full tablet (e.g., 1/2 or 1/4 tablet, 2 tablets) are repackaged by the pharmacy into unit-dose packages.					
N19	Nurses can match the drug name (e.g., generic and/or brand names) on the labels of PATIENT-SPECIFIC MEDICATIONS dispensed from the pharmacy with the corresponding drug name on the MAR, even when therapeutic substitutions are dispensed (e.g., the MAR and label reflect the therapeutic substitution; or the label on the therapeutic substitution lists the product for which it is being substituted).					

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Drug Standardization, Storage, and Distribution

A	No activity to implement
B	Considered, but not implemented
C	Partially implemented in some or all areas
D	Fully implemented in some areas
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Self-Assessment Items

		A	B	C	D	E
Core characteristic #7	*IV solutions, drug concentrations, doses, and administration times are standardized whenever possible.*					
67(1)	Concentrations for infusions of high-alert drugs such as morphine, heparin, insulin, and vasopressors used for adult patients are standardized to a single concentration that is used in at least 90% of the cases.					
67(2)	Concentrations for infusions of high-alert drugs such as morphine, heparin, insulin, and vasopressors used for pediatric patients are standardized to a single concentration that is used in at least 90% of the cases. *Scoring guideline: Choose A or B if you use the* Rule of 6 *to prepare and administer pediatric solutions that contain high-alert drugs, since varying concentrations result when using this method. Score NOT APPLICABLE if you do not treat any pediatric patients (including in the emergency department).*					
		NOT APPLICABLE				
68	Commercially prepared, premixed IV solutions are used whenever they are available on the market.					
69	Manufacturer's prefilled syringes, rather than vials or ampuls, are used for at least 90% of the injectable products (including saline and heparin flushes) that are commercially available in such packaging.					
70	Standard times for scheduled drug administration have been established and are consistently used on each unit throughout the organization. Exception: Selected medications prescribed for infants and young children.					
FAQ 71	Parameters (e.g., dosing windows) have been established, disseminated, and enforced to help nurses safely administer most medications at established standard times even if the initial dose was administered at a nonstandard time.					
	NEW SELF-ASSESSMENT ITEM					
N20a	Sliding scale regular insulin is not used to treat elevated blood glucose levels in diabetic patients.					
OR	**OR**					
N20b	A standardized sliding scale protocol is used to treat elevated blood glucose levels in diabetic patients. Exception: The protocol may allow for several choices depending on specific patient conditions such as diagnosis/weight/total amount of daily insulin, but the choices are standardized among different prescribers. *Scoring guideline: Choose C if a standard protocol exists, but prescribers do not use it consistently. Choose A or B if variations between sliding scales exist for different prescribers, depending on personal preference.*					

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Drug Standardization, Storage, and Distribution *continued*

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Self-Assessment Items

Core characteristic	#8	*Medications are provided to patient care units in a safe and secure manner and available for administration within a time frame that meets essential patient needs.*	A	B	C	D	E
72		The system used to physically deliver medications from the pharmacy to patient care units is directly controlled by the pharmacy using trained staff and/or automated delivery.					
73		Nurses are notified whenever medications are delivered to the unit.					
74		Discontinued PATIENT-SPECIFIC MEDICATIONS are removed from patient supplies in a timely manner (e.g., upon the patient's discharge, discontinuation of the drug, or within 8-hours during the next scheduled pharmacy rounds to patient care units) to prevent accidental administration.					
75		An appropriately secured area in medication rooms has been established for placing discontinued medications (and medications from discharged patients, or removed from automated dispensing cabinets but not used) until pharmacy pick-up, and borrowing these doses for other patients is prohibited.					
76		Realistic criteria and safe time frames for dispensing emergent (stat), urgent (now), and routine medications have been established and agreed upon by all participants in the medication use process.					
77		TURNAROUND TIMES for drug delivery from the pharmacy are consistent with the time frames established by the hospital for emergent (stat), urgent (now), and routine medications.					
78		Prescribers consistently comply with established criteria for ordering drugs on an emergent (stat), urgent (now), and routine basis. *Scoring guideline: Choose D or E only if prescribers do not typically order a stat or urgent dose of medications to compensate for slow delivery of routine medications.*					
79		Antidotes for MODERATE SEDATION and PCA/other IV infusion to treat pain, and accompanying guidelines for emergency use, are readily available near the point of use.					
NEW SELF-ASSESSMENT ITEMS							
N21		Guidelines for alerting practitioners to drug shortages, selecting and using alternative products and doses, and educating practitioners about their safe use (including warnings about potential adverse events) have been established and implemented.					
N22		A list of antidotes and other medicines, typical doses, and directions for preparation and administration have been established in anticipation of potential disasters with mass trauma, and a reliable plan for obtaining these products and associated supplies has been established and is tested at least annually.					

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Drug Standardization, Storage, and Distribution *continued*

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Self-Assessment Items

Core characteristic #9	*Unit-based floor stock is restricted.*	A	B	C	D	E
80	At least 90% of all IV push medications used in inpatient units are dispensed in UNIT-DOSE form to patient care units.					
81	IV solutions that are unavailable commercially are prepared in the pharmacy unless needed in emergent lifesaving situations.					
82	Drugs stocked in patient care units are carefully selected for each unit by considering the needs of each patient care unit, staff expertise and familiarity with specific drugs, the risk of error with each drug, and the age and diagnoses of typical patients being treated on the units.					
83	Drugs stocked in patient care units are available in the least number of doses, concentrations, and forms that will meet essential patient needs between replenishment (not to exceed 72 hours).					
84	Drugs (including emergency medications) stocked in patient care units are in age-specific, ready-to-administer, UNIT-DOSE forms (no bulk supplies). Exceptions: Topical products and antacids.					
85	First doses of high-alert drugs are not removed from floor stock and/or automated dispensing cabinets before a pharmacist reviews the specific patient order and screens the order for safety. Exceptions: Emergent lifesaving situations and periods when a pharmacist is not on the premises.					
86	Pharmaceutical vendors and prescribers are prohibited from distributing drug samples in inpatient areas and the use of samples is prohibited for inpatients.					
87	Pharmaceutical representatives are clearly instructed on the rules governing sample medications; they are required to sign an agreement to abide by the rules; and disciplinary action is taken for intentional rule violations.					
88a	Pharmaceutical vendors and prescribers are prohibited from distributing drug samples in outpatient areas, including emergency departments, ambulatory surgery/procedure units, and radiology.					
OR	**OR**					
88b	Orders for drug samples used in outpatient units are screened for safety by a healthcare professional using computer software before administration onsite or dispensing a supply for home use.					

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Drug Standardization, Storage, and Distribution *continued*

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B	Considered, but not implemented
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E	Fully implemented throughout

Self-Assessment Items		A	B	C	D	E
89a	Neuromuscular blocking agents are not available as floor stock and/or in automated dispensing cabinets (except in operating room/anesthesia stock).					
OR	**OR**					
89b	If available in critical care units and/or the ED, neuromuscular blocking agents are sequestered from other floor stock medications (including those stocked in automated dispensing cabinets) and labeled with auxiliary warnings to clearly identify the drugs as respiratory paralyzing agents that require mechanical ventilation when used.					
90a	At least one pharmacist is physically present onsite 24 hours a day, 7 days a week.					
OR	**OR**					
90B	A night cabinet with a restricted formulary has been established for when the pharmacy is closed, and a pharmacist is on-call for questions and to come into the hospital if needed, and non-pharmacy personnel are prohibited from entering the pharmacy when it is closed.					
OR	**OR**					
90C	A night cabinet with a restricted formulary has been established for when the pharmacy is closed, but a pharmacist at a remote location is available for questions and to enter and screen medication orders before the drugs are removed from the cabinet. Exceptions: Emergent lifesaving situations.					
91	A pharmacist or pharmacy technician regularly inspects designated drug storage areas on patient care units to assure that no unapproved medications are stocked, to assure that minimal quantities of approved medications are stocked, and to assure that all stocked medications are in-date (have not expired).					
92	Vials of concentrated forms of electrolytes (potassium chloride, potassium phosphate, magnesium sulfate, and sodium chloride greater than 0.9%) that require dilution before IV use are not available as floor stock and/or in automated dispensing cabinets on any patient care units (including in operating room/anesthesia stock).					

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Drug Standardization, Storage, and Distribution *continued*

A	No activity to implement
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E	Fully implemented throughout

Self-Assessment Items

		A	B	C	D	E
Core characteristic #10	*Hazardous chemicals are safely sequestered from patients and not accessible in drug preparation areas.*					
93	Bulk chemicals in the pharmacy (for compounding) are routinely assessed and those that are not regularly used or considered dangerous are eliminated from stock.					
FAQ 94	Bulk chemicals used in the pharmacy (for compounding) are labeled with contents, the date the product was first opened, and the manufacturer's expiration date (if an expiration date is available from the manufacturer).					
95	Pharmacy does not store or distribute formalin.					
96	Throughout the hospital, all liquid chemicals, including cleaning compounds, are clearly labeled as to their contents.					
97	Containers of guaiac liquid (e.g., Hemoccult, Seroccult) used to test for occult blood are not present in drug storage or preparation areas, patient rooms, or in patient's bathrooms.					
98	All tissue preservatives or fixatives, caustics, and other non-drug substances used in operating rooms and other patient care areas are clearly labeled and stored separate from medications and other patient supplies.					

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Medication Device Acquisition, Use, and Monitoring

A	No activity to implement
B	Considered, but not implemented
C	Partially implemented in some or all areas
D	Fully implemented in some areas
E	Fully implemented throughout

Self-Assessment Items

Core characteristic #11

The potential for human error is mitigated through careful procurement, maintenance, use, and standardization of devices used to prepare and deliver medications.

		A	B	C	D	E
99	At a minimum, risk management staff, pharmacists, and nurses are actively involved in all MEDICATION DEVICE purchasing decisions.					
100	Error potential for all new MEDICATION DEVICES is identified through a literature search and a FAILURE MODE AND EFFECTS ANALYSIS (FMEA); and potentially harmful error potential is documented and addressed before a decision is made to purchase and use the device.					
101	The distal ends of all tubing are clearly and boldly labeled on patients who are receiving multiple solutions via various routes of administration (e.g., labeling of the distal end of bladder installations, IV, central venous, arterial, epidural, and enteral tubing properly identifies relevant access sites).					
102	With each new bag/bottle, or change in the rate of infusion, of selected high-alert drugs and pediatric/neonatal parenteral solutions, one practitioner readies the solution for administration and a second practitioner independently verifies that the correct drug, drug concentration, rate of infusion, patient, channel selection (for multiple channel pumps), and line attachment have been selected before starting the infusion.					
103	Specially designed oral syringes, which cannot be connected to IV tubing, are used for dispensing/administering oral liquid solutions that are not available in commercially prepared UNIT-OF-USE dosing cups.					
104	The types of general-purpose infusion pumps used in the hospital are limited to two or less to maximize competence with their use.					
105	The types of syringe pumps used in the hospital are limited to two or less to maximize competency with their use. *Scoring guideline: Choose NOT APPLICABLE if you do not use syringe pumps in your hospital.*					
		NOT APPLICABLE				

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Medication Device Acquisition, Use, and Monitoring *continued*

A	No activity to implement
B	Considered, but not implemented
C	Partially implemented in some or all areas
D	Fully implemented in some areas
E	Fully implemented throughout

Self-Assessment Items

		A	B	C	D	E
106	The types of PCA pumps used in the hospital are limited to two or less to maximize competence with their use. *Scoring guideline: Choose NOT APPLICABLE if you do not offer PCA in your hospital.*	NOT APPLICABLE				
107	All electronic infusion control devices undergo inspection and testing at least annually to ensure proper mechanical function.					
108	All solution administration sets used with infusion pumps have integrated free-flow protection to prevent inadvertent free-flow of solutions if the IV tubing and/or the cassette are removed from the pump.					
109	Criteria have been established to determine which patient populations, specific medications, and rates of infusion require delivery of solutions via an infusion control pump.					
FAQ 110	Practitioners, including agency staff, are educated about MEDICATION DEVICES (e.g., infusion pumps, automated compounding equipment) and associated protocols/guidelines; and competency with their use is verified before they are permitted to operate a device.					
	NEW SELF-ASSESSMENT ITEM					
N23	General infusion pumps with SMART PUMP TECHNOLOGY are in use with full functionality employed to intercept and prevent wrong dose/wrong infusion rate errors due to misprogramming the pump, miscalculation, or an inaccurately prescribed dose or infusion rate.					

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Environmental Factors, Workflow, and Staffing Patterns

A	No activity to implement
B	Considered, but not implemented
C	Partially implemented in some or all areas
D	Fully implemented in some areas
E	Fully implemented throughout

Self-Assessment Items

Core characteristic #12	*Medications are prescribed, transcribed, prepared, dispensed, and administered in a physical environment that offers adequate space and lighting, and allows practitioners to remain focused on medication use without distractions.*	A	B	C	D	E
111	Lighting is adequate to clearly read labels and other important drug information in pharmacies, patient unit medication rooms, and at automated dispensing cabinets.					
112	Workspaces where medications are prepared are orderly and free of clutter.					
113	Pharmacies and patient unit medication rooms (or areas) have adequate space for storage of drugs, IV solutions, and drug supplies.					
114	The IV preparation area is isolated to minimize distractions.					
115	All phone calls to the pharmacy are triaged and forwarded to the IV preparation area only when necessary.					
116	Areas where drug orders are transcribed and/or entered into computer systems are isolated and relatively free of distractions and noise.					
117	Medication refrigerators in patient care areas are of sufficient size to allow admixtures that require refrigeration to be stored in an organized manner.					
118	Nurses select medications for administration in medication rooms or other isolated areas that are relatively free of distractions and noise.					
	NEW SELF-ASSESSMENT ITEM					
N24	Nurses (including nurse anesthetists) and physicians (including anesthesiologists) prepare and/or select one patient's medications at a time, immediately before administering the medication.					

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A	No activity to implement
B	Considered, but not implemented
C	Partially implemented in some or all areas
D	Fully implemented in some areas
E	Fully implemented throughout

Self-Assessment Items

		A	B	C	D	E
Core characteristic #13	*The complement of qualified, well-rested practitioners matches the clinical workload without compromising patient safety.*					
119(1)	Medical students, medical residents, and attending physicians work no more than 24 consecutive hours, with planned rest and naptime available. Exception: Isolated emergency situations outside of usual operations. *Scoring guideline: Choose NOT APPLICABLE if your hospital does not have medical students, residents, or employed prescribers.*	NOT APPLICABLE				
119(2)	Practitioners involved in medication use (except medical students, medical residents and attending physicians) work no more than 12 consecutive hours. Exception: Isolated emergency situations outside of usual operations.					
120	Practitioners involved in the medication process have at least 10 hours of rest between shifts worked. Exception: Isolated emergency situations outside of usual operations.					
121	Schedules and workload permit practitioners involved in the medication process to take at least one 15-minute break and one 30-minute break (for a meal) per shift of work each day. Exception: Isolated emergency situations outside of usual operations.					
122	An effective back-up plan has been established for days when staffing is short due to illness, vacation, educational absences, and fluctuations in patient acuity and workload.					
123	Staff pharmacists believe that staffing patterns in their department are adequate to provide safe pharmaceutical care on most days.					
124	Staff nurses believe that staffing patterns on their units are adequate to provide safe patient care on most days.					
FAQ 125	The use of nursing and pharmacy agency staff is minimized. Exception: Long-term agency staff (e.g., traveling nurses) who have been fully oriented to the hospital and medication use processes before working independently.					
126	Hospital or health-system plans for new and/or expanded clinical programs are well communicated to all affected practitioners and appropriate consideration of resources is addressed prior to implementation so that the additional work volume will be met without compromising patient safety.					

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Staff Competency and Education

A	No activity to implement
B	Considered, but not implemented
C	Partially implemented in some or all areas
D	Fully implemented in some areas
E	Fully implemented throughout

Self-Assessment Items

Core characteristic #14	*Practitioners receive sufficient orientation to medication use and undergo baseline and annual competency evaluation of knowledge and skills related to safe medication practices.*	A	B	C	D	E
127	All new nurses, including agency staff, undergo baseline competency evaluation before participating independently in the medication use process.					
128	All new pharmacy staff undergo baseline competency evaluation before participating independently in the medication use process.					
129	During orientation, practitioners receive information about the hospital's actual error experiences as well as published errors that have occurred in other facilities; and they are educated about system-based strategies to reduce the risk of such errors.					
130	During orientation, nurses spend time in the pharmacy (and with clinical pharmacists) to become familiar with the order entry process, drug preparation and dispensing, availability of drug information resources, ways to access these resources, and various medication safety initiatives.					
131	During orientation, pharmacists spend time in patient care units to become familiar with drug prescribing practices, floor stock storage conditions, administration procedures, and patient education processes.					
132	Pharmacists actively participate in the orientation process for new medical staff (including medical students, residents, and attending physicians).					
133	All prescribers, pharmacists, and nurses who work in specialty areas (e.g. critical care, pediatrics, oncology) undergo extensive training and/or obtain certification if available in that specialty before working independently.					
134	Nurses and pharmacists are not pulled from their typically assigned work areas to help in other areas without thorough orientation and ongoing training to maintain their skills and knowledge. Exception: Isolated emergency situations outside of usual operations.					
135	Those who train new staff have a reduced workload to accomplish the goals of orientation safely and thoroughly.					
136	The length of time for orientating new nurses and pharmacists is individualized and based on an ongoing assessment of their needs.					
	NEW SELF-ASSESSMENT ITEMS					
N25	Practitioners' job descriptions, performance evaluations, and the medical staff bylaws include specific accountability standards for patient/medication safety (e.g., willingness to speak up about safety issues, change practices to enhance safety, ask for help when needed, enhance teamwork, follow the safety literature) that do not include the absence of errors or a numeric error threshold; and these standards are supported by the senior leaders and human resources staff.					

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Self-Assessment Items		A	B	C	D	E
N26	The hospital information technology department includes personnel with specialty training in clinical informatics (not just general computing support for hardware and software) who are knowledgeable about applications in medication systems, and who are readily available for assistance in the development, application, and troubleshooting of these systems.					
Core characteristic #15	*Practitioners involved in medication use are provided with ongoing education about medication error prevention and the safe use of drugs that have the greatest potential to cause harm if misused.*					
137	Practitioners are educated about new drugs added to the formulary and associated protocols/guidelines and restrictions before the drugs are used in the hospital.					
138	Pharmacists routinely provide nurses with important information about non-formulary drugs before dispensing the products to patient care areas for administration.					
139	Practitioners receive ongoing information about medication errors occurring within the organization, error-prone situations, errors occurring in other healthcare facilities, and strategies to prevent such errors.					
140	Practitioners are provided with the necessary support and time to attend internal and external education programs related to medication use.					
141	Practitioners are trained in the clinical and administrative procedures for responding to a serious medication error.					
142	When errors occur, educational efforts are widespread among all practitioners who may make a similar error, rather than remedial and directed at only those practitioners who were involved in an error.					
143	Pharmacists present at least four educational programs per year to nurses, pharmacists, and/or prescribers on important drug safety issues.					
	NEW SELF-ASSESSMENT ITEMS					
N27	Simulations of error-prone conditions (e.g., problematic medication packages and labels, mock transcription/order entry of problematic orders) and/or role-playing (e.g., to teach effective communication skills, inquiry skills, conflict resolution) are used as methodologies to orient and educate practitioners and other staff about medication/patient safety.					
N28	HUMAN FACTORS and the principles of error reduction (e.g., standardization, use of constraints, redundancy for critical functions) are introduced during practitioner orientation, and used as the foundation for an annual mandatory educational program for all practitioners involved in the medication use process.					

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SELF-ASSESSMENT ITEMS

		A	B	C	D	E
Core characteristic #16	*Patients are included as active partners in their care through education about their medications and ways to avert errors.*					
144	Patients are educated routinely upon admission to assist healthcare professionals with proper identification by showing staff their identification bracelet (or other form of identification) and stating their names clearly before medications (and other treatments) are administered.					
145	Physicians and other prescribers routinely educate patients about recommended drug therapy before the patient receives an initial dose.					
146	During drug administration, nurses routinely provide patients and/or families with the brand and generic name of the drug, the general purpose of the drug, the prescribed dose, and important side effects.					
FAQ 147	Patients are provided with up-to-date, written information at an 8th grade reading level (or lower) about critical drugs that are prescribed at discharge.					
148	Patients are encouraged to ask questions about the medications they are receiving.					
149	Practitioners fully investigate and resolve all patient/family concerns or questions about a medication prior to prescribing, dispensing, and/or administering it.					
150	Criteria have been established (e.g., selected high-risk drugs, high-risk patient populations, or patients discharged on five or more medications) to trigger an automatic consultation with a pharmacist for patient education.					
151	Pharmacists or prescribers design drug administration schedules that consider the patient's lifestyle and minimize the number of times per day that medications must be taken for patients at high-risk for non-compliance with medications prescribed at discharge.					
152	Patients are informed about the potential for error with drugs that have been known to be problematic (e.g., methotrexate prescribed weekly for arthritis, frequently changing warfarin doses) and are provided with strategies to help prevent such an occurrence after discharge.					
153	Patients are instructed on when and whom to call for concerns or questions about their drug therapy after discharge.					
NEW SELF-ASSESSMENT ITEM						
N29a	Written materials for patients about high-alert drugs prescribed at discharge are available in the primary languages spoken in the nearby community and at an 8th grade reading level (or lower).					
OR	**OR**					
N29b	An appropriately trained translator is available before the patient is discharged to write down important information about high-alert drugs for patients for whom written materials are not available in their primary language.					

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X Quality Processes and Risk Management

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Self-Assessment Items

Core characteristic #17	*A non-punitive, systems-based approach to error reduction is in place and supported by management, senior administration, and the Board of Trustees/Directors.*	A	B	C	D	E
154	Error prevention strategies focus on system enhancements, not individual practitioners.					
155	Practitioners and other staff report and openly discuss errors without undo embarrassment or fear of reprisal from the hospital/organization. *Scoring guideline: If possible, choose score based on staff surveys as noted in item 162.*					
156	All medication errors that reach the patient, regardless of the level of harm that results, are honestly disclosed to patients/families in a timely manner.					
157	No disciplinary action is taken against practitioners who make an error in the post-event process. Exceptions: Malicious or illegal behavior that results in an error; drug diversion; chemical dependence; intentional breech of confidentiality; other egregious behavior.					
158	Practitioners do not accumulate demerits or points for making a medication error; and data related to medication errors are not used as a measure of employee competence or vigilance during performance evaluations.					
FAQ 159	Error rates are not determined or calculated from practitioner error reports and are not used for internal (unit-to-unit) and/or external (hospital-to-hospital) comparison.					
160	Hospital administration and management provide positive incentives for individuals to report errors.					
161	Units with a high error reporting rate are thanked and praised for detecting and reporting errors.					
162	Practitioners are periodically and anonymously surveyed to determine their level of anxiety and fear with making and reporting errors.					
163	Practitioners involved in serious errors that cause patient harm are emotionally supported by their colleagues and provided with psychological counseling (e.g., through an employee assistance program).					
FAQ 164	The Board of Trustees/Directors actively demonstrates its commitment to patient safety (and safe medication practices) by approving a safety plan, rewarding practitioner error reporting, and approving system enhancements, including technology, that are likely to reduce errors.					

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Self-Assessment Items		A	B	C	D	E
FAQ 165	Specific medication safety objectives (e.g., reduce the risk of errors with high-alert drugs; improve medication error detection, reporting, and use of the information) are included in the hospital's strategic plans, directly communicated to all staff, and celebrated (acknowledged in a positive manner) when met.					
166	One or more trained practitioners are employed specifically to enhance detection of medication errors, oversee analysis of their causes, and coordinate an effective error reduction plan (0.5 or 1 full time equivalent qualified practitioner is employed for this purpose alone).					
	NEW SELF-ASSESSMENT ITEMS					
N30	Patient safety is articulated in the organization's mission and/or vision statements.					
N31	Senior leaders (administrative staff, board members when possible) participate in frequent, structured visits (e.g., WalkRounds™) to patient care units, the pharmacy, and laboratories to talk to front-line staff about safety and quality issues, learn first-hand about day-to-day challenges that staff face when providing care and services, and show their support for staff-reported errors.					
N32	Mid-level managers receive formal training on ways to effectively evaluate practitioner competency and performance, supervise and mentor practitioner's clinical skills, and handle difficult practitioner behavior without allowing the presence or absence of medical errors to be a factor.					

Core characteristic #18 *Practitioners are stimulated to detect and report errors, and interdisciplinary teams regularly analyze errors that have occurred within the organization and in other organizations for the purpose of redesigning systems to best support safe practitioner performance.*

167	A clear definition and examples of medication errors and hazardous situations that should be reported have been established and disseminated to practitioners.					
168	Reportable events include both hazardous situations that could lead to an error and actual errors including those that have been detected and corrected before they reach a patient.					
169	Trusted nurse, pharmacist, and physician representatives facilitate periodic, announced, focus groups of front-line practitioners for "off the record" discussions to learn about perceived problems with the medication use system.					
170	The entire medication use process is analyzed at least annually (e.g., using self-assessments such as this tool) to identify potential risk factors for medication errors.					

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Quality Processes and Risk Management *continued*

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Self-Assessment Items		A	B	C	D	E
171	A convened interdisciplinary team, which includes at a minimum, risk management/quality improvement professionals, pharmacists, nurses, physicians, clinical information technology staff, and hospital leadership, reviews medication error reports and other medication safety data to identify the system-based causes of error and facilitate implementation of system enhancements that make it difficult or impossible for practitioners to err.					
172	Practitioners who are directly involved in a serious and potentially serious medication error participate in a ROOT CAUSE ANALYSIS of that error and recommend system enhancements to reduce the potential for future errors.					
173	"Near misses" and hazardous situations that have the potential to cause patient harm (but score low on a patient outcome severity scale) are given the same high priority for analysis and error prevention strategies as errors that actually cause patient harm.					
FAQ 174	A convened interdisciplinary team routinely analyzes and uses published error experiences from other organizations to proactively target improvements in the medication use process.					
175	In addition to practitioner reporting systems, computer markers or triggers for selected drug orders (such as antidotes) and laboratory tests (such as aPTT greater than 100) are used to enhance detection of potential adverse drug events (both medication errors and adverse drug reactions).					
176	Prescribing errors that are detected by pharmacists and nurses are recorded, analyzed, and used in conjunction with medical staff quality improvement activities for system redesign (e.g., establishing drug/dosing protocols, standardized ordering, pharmacy dose consultation, prescriber awareness, and education).					
177	Prescribers, pharmacists, and nurses are provided with regular feedback about reported errors, hazardous situations, and error reduction strategies that are being implemented.					
	NEW SELF-ASSESSMENT ITEMS					
N33	A convened multidisciplinary team routinely evaluates the literature for new technologies and successful evidence-based practices that have been effective in reducing error in other organizations to determine if it can improve its own medication management system.					
N34	Patient representatives from the community are invited to participate in patient safety committees or informal ad-hoc meetings to solicit regular input on medication safety issues and expand the community's awareness of the culture of safety in the organization.					

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Self-Assessment Items

		A	B	C	D	E
FAQ N35	An effective means of measuring medication safety (e.g., random chart review using triggers, tracking risk priority numbers from FAILURE MODE AND EFFECTS ANALYSIS [FMEA], observational methods of error detection, measuring compliance with new medication protocols, drug use evaluations), which does not rely on practitioner-reported data, has been designed and implemented to uncover system-based problems and to demonstrate sustained improvement after implementation of risk reduction strategies.					
N36	Hospital leadership actively engages in dialogue about the untoward consequences of intimidation and deals effectively with reported and observed disruptive behaviors of this nature to lessen the hierarchal structures that make it difficult or uncomfortable for people to raise concerns regardless of education, experience, or rank.					
Core characteristic #19	*Simple redundancies that support a system of* INDEPENDENT DOUBLE CHECKS *or an automated verification process are used for vulnerable parts of the medication system to detect and correct serious errors before they reach patients.*					
178(1)	Prescribers include the mg/kg dose for pediatric patients (under 40 kg) along with the PATIENT-SPECIFIC DOSE for drugs that have a published pediatric mg/kg dosing guideline. *Scoring guideline: Choose NOT APPLICABLE if care is not provided to pediatric patients, even in the emergency department.*					NOT APPLICABLE
178(2)	Prescribers include the mg/m^2 dose (or area under the curve dose) with all chemotherapy drug orders. *Scoring guideline: Choose NOT APPLICABLE if chemotherapy is never prescribed in the hospital.*					NOT APPLICABLE
179(1)	If a mg/kg dose is listed in a drug order for a pediatric patient, a pharmacist verifies that it is correct, and documents (e.g., with initials) a double check of the prescriber's calculated dose (or it is performed electronically) before preparing and dispensing the drug. *Scoring guideline: Choose NOT APPLICABLE if care is not provided to pediatric patients, even in the emergency department.*					NOT APPLICABLE
179(2)	A pharmacist verifies that the mg/m^2 dose, or area under the curve dose, listed with a chemotherapy order is correct, and documents (e.g., with initials) a double check of the prescriber's calculated dose (or it is performed electronically) before preparing and dispensing the drug. *Scoring guideline: Choose NOT APPLICABLE if chemotherapy is never prescribed in the hospital.*					NOT APPLICABLE
180(1)	Nurses permanently document (e.g., with initials) an INDEPENDENT DOUBLE CHECK of the prescriber's calculated dose for pediatric drug orders before administering the drug. *Scoring guideline: Choose NOT APPLICABLE if care is not provided to pediatric patients, even in the emergency department.*					NOT APPLICABLE
180(2)	Nurses permanently document (e.g., with initials) an INDEPENDENT DOUBLE CHECK of the prescriber's calculated dose for chemotherapy before administering the drug. *Scoring guideline: Choose NOT APPLICABLE if chemotherapy is never prescribed in the hospital.*					NOT APPLICABLE

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Self-Assessment Items		A	B	C	D	E
181(1)	The drugs, actual drug containers, doses, diluents, and volumes added to the diluent for pediatric/neonatal parenteral admixtures are INDEPENDENTLY DOUBLE CHECKED by a pharmacist or a nurse (even if initially prepared by a pharmacist) and documented (e.g., with initials) before dispensing/administering the products. *Scoring guideline: Choose NOT APPLICABLE if care is not provided to pediatric patients, even in the emergency department.*					
		NOT APPLICABLE				
181(2)	The drugs, actual drug containers, doses, diluents, and volumes added to the diluent for chemotherapy admixtures or compounded oral solutions are INDEPENDENTLY DOUBLE CHECKED by a pharmacist or a nurse (even if initially prepared by a pharmacist) and documented (e.g., with initials) before dispensing/administering the products. *Scoring guideline: Choose NOT APPLICABLE if chemotherapy is never prescribed in the hospital.*					
		NOT APPLICABLE				
182	New drug orders are checked and documented (e.g., with initials) by at least a pharmacist and one other person before being dispensed from the pharmacy.					
183	Selected high-alert drugs (as defined by the hospital) that are removed from unit floor stock and/or automated dispensing cabinets are INDEPENDENTLY DOUBLE CHECKED by another practitioner and documented before administration.					
184a	Some form of end product testing (e.g., refractometer, weighing, lab confirmation) of complex intravenous admixtures (e.g., TPNs, cardioplegic solutions) is used to check the contents before the pharmacy dispenses the solution.					
OR	**OR**					
184b	All complex solutions are outsourced.					
185	MACHINE-READABLE CODING (e.g., bar coding) is used to verify drug selection prior to dispensing drugs (includes robotic dispensing).					
186a	**In hospitals WITH automated compounders**: MACHINE-READABLE CODING (e.g., bar coding) is used to verify all base solutions and additives attached to automated IV admixture compounders.					
OR	**OR**					
186b	**In hospitals WITHOUT automated compounders OR WITHOUT MACHINE-READABLE CODING for automated compounders**: At least a pharmacist and one other person verify and document all base solutions and additives used in compounding all TPNs and/or cardioplegic solutions.					

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Quality Processes and Risk Management *continued*

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Self-Assessment Items		A	B	C	D	E
187	Machine-readable coding (e.g., bar coding) is used at the point of care to verify drug selection prior to administering medications.					
188a	**In hospitals WITHOUT computerized prescriber order entry (CPOE) systems**: Drugs are filled using the order copy and the computer-generated drug label together and a pharmacist compares the label with the original order copy before drugs are dispensed.					
OR	**OR**					
188b	**In hospitals WITH computerized prescriber order entry (CPOE) systems**: A pharmacist reviews the order in the computer before generating a label from which the drug order is filled.					
	NEW SELF-ASSESSMENT ITEM					
N37	The pharmacy computer system (and prescriber order entry system, if used) is periodically evaluated for clinically insignificant and false positive alerts, and action is taken to minimize the appearance of these alerts.					
Core characteristic #20	*Proven infection control practices are followed when storing, preparing, and administering medications.*					
FAQ 189	Standards in the USP General Tests and Assays Chapter 797 (contained in the "Pharmaceutical Compounding-Sterile Preparations," United States Pharmacoepeia, 27th Revision, and The National Formulary, 22nd Edition) are followed in all pharmacies where IV admixture occurs.					
190	Pharmacy staff members work in a segregated IV admixture area, utilizing aseptic techniques.					
191	Staff members do not directly handle loose oral solid products.					
192	Staff members use appropriate hand washing procedures prior to preparing any injectable product (e.g., IM, IV push, IV admixture).					
193	In patient care areas, multiple-dose vials are not used for saline or heparin flush solutions, or local anesthetics (as numerous entries into the vial and patient IV lines may occur for a single patient.) Exception: Local anesthetics used in the operating room.					
194	Containers of eye drops are not used for more than one patient.					

Transfer password found on the inside back cover of the self assessment: _____
(password)

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Definitions

(For purposes of the 2004 ISMP Medication Safety Self Assessment® for Hospitals)

Age-specific medications
Medications packaged in concentrations and/or volumes of varying sizes that are intended for ease of administration and control of waste for a specific age group (e.g., neonatal, pediatric, adult).

Error-prone abbreviations
Certain medical abbreviations, symbols, and dose designations that are considered "dangerous" and have often contributed to serious medication errors. A complete list can be found on the ISMP website (**www.ismp.org**).

Failure Mode and Effects Analysis (FMEA)
A proactive risk assessment method based on the simultaneous analysis of possible failure modes, their consequences, and associated risk factors. Also referred to as Failure Mode Effects and Criticality Analysis (FMECA) and Healthcare Failure Mode and Effects Analysis (HFMEA).

Human factors
The study of the interrelationships between humans, the tools they use, and the environment in which they work.

Independent double check
A procedure in which two individuals, preferably two licensed practitioners, separately check each component of the work process. An example would be one person calculating a medication dose for a specific patient and a second individual independently performing the same calculation (not just verifying the calculation) and matching results.

Interfaced
A direct link between two information systems such that the information from one system is immediately available to the user of the second system and integrated into the system in a way that supports clinical decision making (e.g., interfacing the laboratory and pharmacy computer systems would immediately provide corresponding laboratory data to the pharmacist while he/she is entering or reviewing a specific medication order). This may or may not include a bi-directional interface of the two systems to allow communication in both directions.

Machine-readable coding
Any encoded identifying mark (e.g., bar code) representing data that can be read with a computerized reading device, such as a scanner or imager.

Maximum dose
The dose of a medication that represents the upper limit that is normally found in the literature and/or manufacturer recommendations. Maximum doses may vary according to age, weight, or diagnosis.

Medication devices
Equipment such as infusion pumps, implantable pumps, syringes, tubing, patient controlled analgesia pumps, automated compounding devices, robotics, and other related devices that are used for medication preparation, dispensing, and administration.

Mnemonics
A limited number of letters and/or numbers that are used to represent a specific medication (e.g., ASA80 may represent aspirin 80 mg tablets).

Moderate sedation
The administration of any pharmacological agent, which will likely cause a medically controlled state of depressed consciousness. This state would be limited to short periods and utilized for diagnostic and therapeutic procedures that: 1) allow protective reflexes to be maintained, 2) retain the patient's ability to maintain a patent airway, respiratory rate and rhythm, and 3) permit expected responses by the patient to physical stimulation and verbal command.

Nurse-controlled analgesia
The intermittent dosing of a patient controlled analgesia pump or device performed by a nurse or other licensed practitioner rather than the patient. This practice should only be performed by nursing protocol when the patient is capable of requesting a dose of medication within the prescribed limits, but not capable of performing the function himself.

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PHARMACY AND THERAPEUTICS COMMITTEE

An interdisciplinary committee that convenes on a scheduled basis, or when necessary, to review the safety, use, efficacy, and monitoring of medications that will be available for use in the hospital. The committee also sets policy and procedures, on behalf of the medical staff and hospital administration, on the safety of the entire medication use process.

PATIENT-SPECIFIC MEDICATION (OR DOSE)

A ready-to-administer patient-specific dose of medication that exactly matches the dose ordered by the prescriber. This may or may not correspond to the manufacturer unit-dose package. (See UNIT-DOSE.)

ROOT CAUSE ANALYSIS

A retrospective process for identifying the most basic or causal factor(s) that underlie the occurrence or possible occurrence of an adverse event.

RULE OF 6

A formula, originally designed for pediatric emergencies, in which the amount of drug to add to a set volume of solution and the rate of infusion are calculated using the following guidelines: 6 x weight in kilograms (kg) equals the amount of drug in milligrams (mg) that should be added to 100 mL of solution. The infusion volume in mL per hour then equals the mcg/kg/minute dose ordered. For example, a drug ordered at 10 mcg/kg/minute would equal an infusion rate of 10 mL per hour using the Rule of 6.

SMART PUMP TECHNOLOGY

An infusion pump with computer software that is capable of alerting the user to unsafe dose limits and programming errors if standard concentrations and dose limits have been programmed into the pump's library.

TALL-MAN LETTERING

Enhancement of unique letter characters of drug names by use of upper case characters and may also include italics, color background, or a combination of these elements to improve differentiation of look-alike drug names.

TURNAROUND TIME

An interval that represents the period of time it takes for a medication order to be processed, typically from the time an order is written or electronically entered into a computer until the medication is available to a practitioner for administration to a patient.

UNIT-DOSE

A single package that contains one dose of a medication intended for one patient (e.g., a package with one tablet, one single-use vial of parenteral medication, 5 mL container holding one dose of liquid medication). (See PATIENT-SPECIFIC MEDICATION.)

UNIT-OF-USE

A supply of medication that is intended for a full course of therapy, or several doses of therapy, for a single patient (e.g., 21 tablet dispenser for a course of therapy that includes one tablet 3 times per day for 7 days or a 120 mL bottle of antacid therapy that may contain four 30 mL doses).

WALKROUNDS™

A formal process in which a core group, including senior executives, conducts weekly visits to different areas of the hospital to ask specific questions about adverse events or near misses and about the factors or systems issues that lead to these events. [Frankel A, Graydon-Baker E, Neppl C, Simmonds T, Gustafson M, Gandhi TK. Patient safety leadership WalkRounds™. *Jt Comm J Qual Safety.* 2003;29:16-26.]

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