

Standard MMU.05.02

Medication prescriptions or orders are reviewed for appropriateness.

Intent of MMU.05.02

Good medication management includes two reviews of each prescription or order:

- The appropriateness of the medication for the patient and their clinical needs performed at the time the medication is prescribed or ordered
- The verification at the time of administration that the medication is exactly as ordered or prescribed

Each newly prescribed or ordered medication is reviewed for appropriateness, including when the dosage or other appropriateness factors noted below changes; for example, when new drugs are prescribed, and therapeutic duplication may be an issue, or when a potential medication interaction may occur. The hospital defines what patient-specific information is required for the appropriateness review of the order or prescription. For example, if a newly prescribed medication can affect the kidneys or liver, the appropriateness review includes specific clinical information about the patient's renal and liver function, as well as when these organ functions change.

The process to conduct an appropriateness review for an order or prescription prior to dispensing includes evaluation of appropriateness of the drug, dose, frequency, and route of administration; therapeutic duplication; allergies, or sensitivities, and interactions between the medication and other medications or food; variation from hospital criteria for use; patient's weight and other physiological information; current or potential impact as indicated by laboratory values; and other contraindications.

The hospital determines the manner in which the appropriateness review is conducted. For example, the appropriateness review may be conducted by individuals competent to do so by virtue of education and training, such as licensed pharmacists, or as specified by privileging specific to performing appropriateness reviews for independent health care practitioners with training and competency in performing an appropriateness review process; or for nurses or other professionals with training and demonstrated competency in the review process.

The hospital may choose to use clinical decision support programs associated with medication management to enhance the process or to conduct the appropriateness review process in conjunction with a designated licensed professional or trained individual; nonetheless, clinical decision support alone does not suffice for a full appropriateness review and is therefore not accepted as an alternative in terms of meeting the requirement for conducting an appropriateness review. For example, many electronic medication ordering systems are designed to review the order for the complete elements of an appropriateness review, including patient-specific clinical information, and provide an alert to the ordering individual of a contraindication to prescribing the medication. When the ordering individual overrides the alert, the hospital develops a process for a full review of the order by a health care practitioner who is trained and demonstrates competence in a full appropriateness review.

Appropriateness reviews must be conducted even when circumstances are not ideal. For example, if the central pharmacy or a unit pharmacy is not open, or the drug will be dispensed from stock on the ward or clinic, the appropriateness review may be conducted in conjunction with the verification review when the ordering individual will administer the medication and monitor the patient.

When the ordering individual is not available to administer the medication and monitor the patient, critical elements of the appropriateness review may be performed by other trained and competent individuals for administration of the first dose of the medication. However, the entire appropriateness review must be performed by a licensed pharmacist, or other licensed professional, such as a nurse or physician, competent in the knowledge required for a full appropriateness review, within 24 hours.

The critical elements of the appropriateness review may be conducted by other licensed trained individuals during times when the pharmacy is not available. These individuals require documented training in conducting the critical elements of the appropriateness review and will be supported by reference materials, computer programs, and other resources. Thus, when a physician calls in a new medication order during the night for a patient, the trained individual will write down and read back the order and then conduct an appropriateness review for the identified critical elements. A second review will be required by a licensed pharmacist or other licensed professional, such as a nurse or physician competent in the knowledge required for a full appropriateness review, within 24 hours.

There may be circumstances in which the full appropriateness review is not practical, such as in an emergency or when the ordering physician is present for ordering, administering, and monitoring of the patient (for example, in the operating theatre or the emergency department), or with oral, rectal, or injectable contrast in interventional radiology or diagnostic imaging where the medication is part of the procedure.

To facilitate the appropriateness review, those performing the review require access to the patient's medication record as well as to the clinical information that is pertinent to the review process; for example, information related to the patient's renal or liver function when a medication can affect or be affected by those organs. This information is essential to the appropriateness review. When computer programs are used to cross-check drug-drug interactions and drug allergies, the programs are current and updated according to recommendations of the program manufacturers. In addition, when print reference materials are used, the most current versions of the materials are used.

Measurable Elements of MMU.05.02

1. ① The hospital defines, in writing, the patient-specific information required for an effective review process, and the source or availability of this information is available at all times when the pharmacy is open or closed.
2. Each prescription or order is reviewed for appropriateness in a manner, identified by the hospital, that ensures a full appropriateness review prior to dispensing and administration, except in an emergency or when the ordering physician is present for ordering, administering, and monitoring of the patient, in accordance with laws and regulations. (*See also* MMU.06.00, ME 2)
3. The process to conduct an appropriateness review for an order or prescription prior to dispensing includes evaluation of the following:
 - Appropriateness of the drug, dose, frequency, and route of administration
 - Therapeutic duplication
 - Real or potential allergies or sensitivities
 - Real or potential interactions between the medication and other medications or food
 - Variation from hospital criteria for use
 - Patient's weight and other physiological information
 - Current or potential impact as indicated by laboratory values
 - Other contraindications
4. Individuals permitted to conduct appropriateness reviews meet the following criteria:
 - Are assessed competent to do so by a qualified individual(s).
 - Are permitted to do so by privileges or job descriptions.
 - Are provided resources to support the review process.
5. When the designated licensed professional is not available to perform the full appropriateness review, a trained individual conducts and documents a review of the following critical elements for the first dose, prior to the full appropriateness review that must be conducted within 24 hours:
 - Allergies
 - Lethal drug-drug interactions
 - Weight-based dosing
 - Potential organ toxicity
6. Clinical decision support programs used in conjunction with a designated licensed professional or trained individual for the full appropriateness review, as well as other computer programs and print reference materials used to cross-check the critical elements of an appropriateness review, are current and updated.
7. ② After the medication order has been reviewed, concerns, issues, or questions are clarified with the individual prescriber before dispensing according to hospital policy.

Standard MMU.05.03

A system is used to safely dispense medications in the right dose to the right patient at the right time.

Intent of MMU.05.03

Medication use has become increasingly complex, and medication errors are a major cause of preventable patient harm. A uniform system for dispensing and distributing medications in the most ready-to-administer form can help reduce the risk of medication errors.

The hospital dispenses medications in the most ready-to-administer form possible to minimize opportunities for error during distribution and administration. The issue of the most ready-to-administer form becomes crucial during emergent situations in which immediate administration of the medication is lifesaving (for example, during resuscitation). The central pharmacy and other medication-distribution points throughout the hospital use the same system. The system supports accurate dispensing of medications in a timely manner.