

Medication Management and Use (MMU)

Overview

Medications are a critical component of the care provided to patients and are used for diagnostic, symptomatic, preventive, curative, and palliative treatment and management of diseases and conditions. According to the American Nurses Association, almost two thirds of the US population takes at least one medication per day, and more than half of the population takes at least two. Globally, medication errors and unsafe medication practices are the leading cause of injury and avoidable harm in health care systems, carrying an estimated annual cost of 42 billion dollars, excluding lost wages and productivity. Medication-related harm represents 50% of health care's reported preventable harm, with prescribing and monitoring errors leading as highest risk factors. For example, in Europe, the rate of medication errors in hospitals at the prescription stage is 0.3%–9.1%, and from 1.6% to 2.1% at the dispensing stage. A study in the United Kingdom estimated that 28% of the 237 million medication errors that happen at some point in the medication process are potentially clinically significant. But that study also found that errors can occur at all stages of the medication management process: prescribing (21.3%), transcription (1.4%), dispensing (15.9%), administration (54.4%) and monitoring (7.0%). Also, a study in Spain concluded that medication errors accounted for 37.4% of the total number of adverse events.

A medication system that supports optimal medication management must include processes that support safe and effective medication use. Safe, effective medication use involves an interdisciplinary, coordinated effort of health care practitioners applying the principles of process design, implementation, and improvement to all aspects of the medication management process, which includes the selecting, procuring, storing, ordering/prescribing, transcribing, distributing, preparing, dispensing, administering, documenting, and monitoring of medication therapies. Although health care practitioners' roles in medication management vary greatly from one country to another, sound medication management processes for patient safety are universal, and must be supported by scientific evidence and guidance for prescribers such as in the development of a program for and the use of accepted medication practice guidelines.

Note: *Medication* is defined as any 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, to treat, or to prevent disease or other abnormal conditions; radioactive medications; respiratory therapy treatments; parenteral nutrition; blood derivatives; and intravenous solutions (plain, with electrolytes and/or drugs), as well as solutions administered/used on the patient by the surgical team during surgical/invasive procedures.

Standards

The following is a list of all standards for this function. They are presented here for your convenience without their intent statements or measurable elements. For more information about these standards, please see the next section in this chapter, Standards, Intents, and Measurable Elements.

Organization and Management

- MMU.01.00** The hospital manages its medication management processes.
- MMU.01.01** The hospital implements a program for the prudent use of antimicrobials based on the principle of antimicrobial stewardship.
- MMU.01.02** The hospital has a medication recall system process.
- MMU.01.03** The hospital has a process for handling expired medications.

Selection and Procurement

- MMU.02.00** The hospital implements a process for the selection and procurement of medications.

Storage

- MMU.03.00** Medications are properly and safely stored.
- MMU.03.01** Emergency medications are available, uniformly stored, monitored, and secure when stored out of the pharmacy.

Ordering and Transcribing

- MMU.04.00** The hospital identifies those qualified individuals permitted to prescribe or to order medications.
- MMU.04.01** The hospital identifies safe prescribing, ordering, and transcribing practices and defines the elements of a complete order or prescription.
- MMU.04.02** The hospital has a medication reconciliation process.

Preparing and Dispensing

- MMU.05.00** Medications are prepared and dispensed in a safe and clean environment.
- MMU.05.01** The hospital's process for radiopharmaceuticals is in accordance with laws, regulations, and guidelines.
- MMU.05.02** Medication prescriptions or orders are reviewed for appropriateness.
- MMU.05.03** A system is used to safely dispense medications in the right dose to the right patient at the right time.

Administration

- MMU.06.00** Medication administration is safely performed by qualified individuals.
- MMU.06.01** Policies and procedures govern medications brought into the hospital by the patient or family, medication prescribed for patient self-administration, and medications brought into the hospital as samples.

Monitoring

- MMU.07.00** The hospital monitors and responds to actual or potential adverse drug events and adverse drug reactions.
- MMU.07.01** The hospital implements a process for identifying, reporting, managing, and tracking all medication errors and near miss events (or close calls).