

Standard MMU.03.01

Emergency medications are available, uniformly stored, monitored, and secure when stored out of the pharmacy.

Intent of MMU.03.01

Quick access to appropriate emergency medications is critical when patient emergencies occur. Each hospital plans the uniform location of emergency medications, which facilitates quick access to the correct medications in emergencies. Emergency resuscitation is a highly stressful, time-sensitive situation. As a result, the risk of medication errors occurring during emergency resuscitation may be higher. The Institute for Safe Medication Practices (ISMP) identifies that commonly reported contributing factors to this higher risk of errors include the following:

- Look-alike product packaging or drug names
- Disorganized and nonstandardized emergency carts
- Excessive stock in emergency carts
- Distractions caused by the hectic environment
- Poorly communicated verbal orders
- Inexperienced staff
- Alternative drugs in emergency carts
- Confusing or missing information about drugs
- Multiple concentrations of a drug in emergency cart drawers

Therefore, when patient emergencies occur, quick access to appropriate emergency medications is critical.

Each hospital plans the location of emergency medications and the medications to be supplied based on the populations served. For example, agents to reverse anesthesia are found in the operating theatres. Emergency cabinets, carts, bags, or boxes can be used for this purpose. Emergency medications are stored uniformly to facilitate quick access to the correct medications. For example, in each emergency cart in the hospital, the emergency medications are in the same drawer, and the medications are laid out in the same manner within the drawer of each cart. This is particularly important for staff who may need to access an emergency medication from a cart they do not typically use. Storage of medications in pediatric emergency carts is different from adult emergency carts; however, the medications are stored uniformly within each type of cart. Although common emergency medications used in pediatric resuscitation are not different than those used in adult resuscitation, the dosage is often different and weight-based, or it requires a different concentration, whereas adult dosages are generally (but not always) given by dose. For example, a common dose of epinephrine used for adult cardiac arrest is 1 mg and for the pediatric population it is weight-based and recommended at 0.01 mg/kg by the American Heart Association's Pediatric Advanced Life Support (AHA PALS) protocol. The hospital must ensure that emergency carts also have the necessary tools and drug concentrations to facilitate dosing of pediatric medications in an emergency.

The hospital establishes a procedure or process to prevent abuse, theft, or loss of the medications to ensure access to emergency medications when needed, as well as ensuring that medications are replaced when used, damaged, or out of date. For example, incorporating emergency cart checks into the daily work of the unit staff can help to ensure the integrity of the cart and its contents. The hospital must understand the balance between ready access and security for locations where emergency medications are stored, but also keep in mind that access to emergency medications must not require a specific individual(s) on the unit to unlock the emergency cart. In instances such as these, if the individual(s) is unavailable, the medications are no longer readily accessible, even though they may be secure.

Consistency and uniformity in the approach to emergency resuscitation may significantly reduce the risks and improve patient outcomes. One example of a strategy a hospital can take is a risk-based approach to increase safety and improve patient outcomes by looking at internal data from previous emergency situations to review

the availability of emergency medications or reviewing public literature on the subject. Examples of strategies identified in the literature include the following:

- Use a strategy to differentiate between adult and pediatric medications; for example, using separate adult and pediatric carts or, when using a universal cart, storing the medications and equipment in separate adult and pediatric drawers.
- Keep a designated medication box for neonates in areas that care for neonates.
- Standardize cart and drawer layout throughout the hospital.

Measurable Elements of MMU.03.01

1. Emergency medications are immediately available in the patient care areas or are readily accessible within the hospital to meet emergency needs.
2. ⑩ The hospital establishes and implements a consistent and uniform written process for how emergency medications are stored; maintained; replaced when used, damaged, or out of date; and protected from loss or theft. (*See also* FMS.04.00, ME 2)
3. Access to emergency medications shall not require a specific individual or keys to unlock the emergency cart.
4. The hospital uses a risk-based approach to identify and implement strategies to improve the efficiency and accuracy of medication administration during emergency resuscitation. This approach at minimum includes the following:
 - Review of internal data from previous emergency situations to assess the availability of emergency medications (*See also* COP.04.00, ME 2)
 - Review of literature on the subject

Ordering and Transcribing

Standard MMU.04.00

The hospital identifies those qualified individuals permitted to prescribe or to order medications.

Intent of MMU.04.00

Each hospital is responsible for identifying those individuals with the requisite knowledge and experience and who are also permitted by licensure, certification, laws, or regulations to prescribe or to order medications. Selecting a medication to treat a patient requires specific knowledge and experience. A hospital may place limits on prescribing or ordering by an individual, such as for controlled substances, chemotherapy agents, or radioactive and investigational medications. Individuals permitted to prescribe and to order medications are known to the pharmaceutical service or others who dispense medications. In emergency situations, the hospital identifies any additional individuals permitted to prescribe or to order medications.

Measurable Elements of MMU.04.00

1. Only those permitted by the hospital and by relevant licensure, laws, and regulations prescribe or order medications. (*See also* COP.01.00, ME 1; IPSC.03.02, ME 1)
2. Individuals permitted to prescribe and to order medications are known to the pharmaceutical service or others who dispense medications.

Standard MMU.04.01

The hospital identifies safe prescribing, ordering, and transcribing practices and defines the elements of a complete order or prescription.