- Accompanied by robust, well-developed risk reduction strategies that decrease the risk of errors and minimize harm

Strategies should be applicable to all hospital departments and services and sustainable over time. According to ISMP, examples of these include the following:

- Standardizing processes associated with ordering, storage, preparation, and administration of these medications
- Improving access to information about these drugs
- Limiting access to high-alert medications
- Using additional labels and automated alerts
- Building redundancies into the medication management process such as automated or independent double checks, fail-safe methods such as pumps with locking mechanisms, and reducing available options, such as limiting available concentrations of the same medication

The hospital's risk mitigation interventions must be evident in the overall medication management program and in the clinical areas where these medications are used. For example, IV heparin used in neonatal intensive care units may require different safety strategies than IV heparin in the emergency department, and this should be evident in those areas. However, general strategies such as special labels for high-alert medications and a double-check process must be standardized throughout the hospital to avoid confusion.

Measurable Elements of IPSG.03.00

1. Ⓓ The hospital identifies, in writing, its list of high-alert medications. (*See also* MMU.02.00, ME 1)
2. The hospital implements a risk mitigation strategy for reducing the risk of harm from high-alert medications that is uniform throughout the hospital and, in addition, includes tailored strategies for specific medications when necessary.
3. The hospital reviews and, as necessary, revises its list of high-alert medications annually at minimum.

Standard IPSG.03.01

The hospital implements a process to improve the safety of look-alike/sound-alike medications.

Intent of IPSG.03.01

Medications that have similar product packaging or that have names that sound similar can easily be confused by health care practitioners and may lead to potentially harmful medication errors. Look-alike/sound-alike (LASA) names are medicine names that look or sound the same as other medicine names when written or spoken. Look-alike medicine packaging refers to medicine containers or primary packaging that looks like that of another medicine. There are many medication names that sound or look like other medication names. For example, *dopamine* and *dobutamine* sound alike, and the printed names may also look alike in some languages such as English. Confusing names are a common cause of medication errors throughout the world. The following factors contribute to this confusion:

- Incomplete knowledge of drug names
- Newly available products
- Similar packaging or labeling
- Similar clinical use
- Illegible prescriptions or misunderstanding during issuing of verbal orders

Hospitals must institute risk management strategies to avoid confusion with LASA medications and enhance patient safety. The hospital must determine which medications require safeguards to prevent LASA–related confusion that can cause errors. Strategies may include but are not limited to the following:

- Including the medication's purpose on the prescriptions
- Configuring safeguards in computerized medication ordering systems to require a minimum number of letters, such as at least five letters, when health care practitioners are searching for a medication

- Changing the appearance of look-alike medication names (for example, using "**TALL**man lettering" on labels such as **DOBUT**amine and **DOP**amine or oxy**BUTY**nin and oxy**CONTIN**)

When use of the above suggested methods is not possible, the hospital must implement an alternative strategy to prevent LASA errors. The hospital should also stay updated on emerging strategies to prevent LASA errors when applicable and when available resources allow. Examples include the following:

- Configuration of computer selection screens and drop-down menus in prescription systems to prevent LASA names from appearing adjacent to each other
- Automated dispensing by means of electronic devices and serialization technology
- Use of a closed-loop system with barcode technology to enhance the readability of look-alike labels
- Consideration of potential LASA errors when reordering stock or making purchasing decisions

The hospital should keep its list of LASA medications updated regularly, as new medications are approved or trade names of drugs change. The risks for LASA–related errors are not limited to prescribing and dispensing. Other strategies to prevent LASA errors include avoiding storage of these medications close to each other, where a health care practitioner could inadvertently retrieve the wrong one for dispensing or administration. The hospital's process should also include a mechanism to evaluate whether a LASA risk exists when the hospital must substitute medications to address shortages (for example, when substituting another brand of medication that has packaging similar to a different medication in the existing formulary, or which has a different trade name from the original that is similar to another medication). The hospital should implement a *comprehensive approach* to LASA medication management, from the point of medication stock ordering where decisions are made regarding brands (trade names of medications, label appearances), throughout the continuum all the way to the frontline staff who handle and administer them. The hospital must educate clinical and technical staff handling LASA medications on the standardized process, the risks related to each medication, and the risk mitigation strategies for each medication.

Measurable Elements of IPSG.03.01

1. Ⓓ The hospital identifies, in writing, its list of look-alike/sound-alike medications. (*See also* MMU.02.00, ME 1; MMU.07.01, ME 2)
2. The hospital implements a process for managing look-alike/sound-alike medications that is comprehensive and uniform throughout the hospital. (*See also* MMU.07.01, ME 2)
3. The hospital reviews and revises, when necessary, its list of look-alike/sound-alike medications annually at minimum.

Standard IPSG.03.02

The hospital implements a process to manage the safe use of concentrated electrolytes.

Intent of IPSG.03.02

The incorrect or unintentional administration of concentrated electrolytes can be deadly errors, and the most effective means to reduce or to eliminate these occurrences is to implement a process for managing concentrated electrolytes. Concentrated electrolytes are *vials* of concentrated forms of electrolytes that *require dilution* or other preparation before IV administration. It is important to distinguish that the standard excludes concentrated forms of electrolytes such as 3%–5% saline for infusion, because it is already diluted and prepared for infusion rather than being stocked in vials that require dilution before administration. Concentrated electrolytes include but are not limited to the following:

- Potassium chloride
- Potassium phosphate
- Sodium chloride
- Magnesium sulfate