High-alert medications are drugs that bear a heightened risk of causing significant patient or resident harm when they are used in error (e.g., wrong drug, wrong dose, wrong route). Although mistakes may or may not be more common with these drugs, the consequences of an error with these medications are clearly more devastating to patients or residents. We hope you will use this list to determine which medications require special safeguards to reduce the risk of errors. This may include strategies such as standardizing the ordering, storage, preparation, and administration of these products; improving access to information about these drugs; limiting access to high-alert medications; using auxiliary labels and automated alerts; and employing redundancies such as automated or independent double-checks when necessary. (Note: manual independent double-checks are not always the optimal error-reduction strategy and may not be practical for all of the medications on the list). Please note that long-term acute care (LTAC) facilities, and LTC facilities with subacute units or where a wide variety of intravenous medications are administered, should also use the ISMP List of High-Alert Medications in Acute Care Settings, which can be found at: www.ismp.org/Tools/institutionalhighAlert.asp. Facilities are also encouraged to use other resources, such as the Beers Criteria1 and STOPP and START Criteria,2 to identify and address medications that should be avoided in the elderly population, which are different from high-alert medications.

**ISMP List of High-Alert Medications in Long-Term Care (LTC) Settings**

**Classes/Categories of Medications**

- anticoagulants, parenteral and oral*
- chemotherapeutic agents, parenteral and oral (excluding hormonal agents)
- hypoglycemics, oral (including combination products with another drug)
- insulin, all formulations and strengths (e.g., U-100, U-200, U-300, U-500)
- parenteral nutrition preparations
- opioids - parenteral, transdermal, and oral (including liquid concentrates, immediate- and sustained-release formulations, and combination products with another drug)

**Specific Medications**

- digoxin, parenteral and oral
- EPINEPHrine, parenteral
- iron dextran, parenteral
- methotrexate, oral, non-oncology use **
- concentrated morphine solution, oral ***

** Background **

Based on error reports submitted to the ISMP National Medication Errors Reporting Program, reports of harmful errors in the literature, and input from practitioners and safety experts, ISMP created and will periodically update a list of potential high-alert medications in the long-term care setting. During March 2016, practitioners from LTC facilities responded to an ISMP survey designed to identify which medications were most frequently considered high-alert medications in this setting. Further, to assure relevance and completeness, the clinical staff at ISMP, members of our LTC Advisory Board, and safety experts throughout the US were asked to review the potential list. This list of specific medications and medication classes/categories reflects the collective thinking of all who provided input.

** REFERENCES **


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