



The Institute for Safe Medication Practices (ISMP) defines a high-alert medication as one that bears a heightened risk of causing significant resident harm when used in error. Although mistakes may not be more common with these medications, the results of an error are much more devastating to the resident. As healthcare providers, it is important that we identify high-alert medications and incorporate safe and effective practices for the prescribing, storage, dispensing, administration, monitoring and follow-up of these medications.

High-Alert Medication List		
<p><b>Anticoagulants – Injectable:</b>  <i>Examples: unfractionated and low molecular weight heparin, enoxaparin, dalteparin, tinzaparin</i></p>	<p><b>Insulin:</b>  <i>All formulations</i></p>	
<p><b>Anticoagulants – Oral:</b>  <i>Examples: warfarin, dabigatran, rivaroxaban, apixaban</i></p>	<p><b>Opioids:</b>  <i>Examples: high-potency formulations including morphine, HYDROmorphone, oxyCODONE, fentaNYL, traMADol</i></p>	
<p><b>Antiretroviral Agents:</b>  <i>Examples: efavirenz, lamivUDine, raltegravir, ritonavir, combination antiretroviral products</i></p>		
<p><b>Chemotherapeutic (Cytotoxic) Agents:</b>  <i>Examples: cyclophosphamide, busulfan</i></p>	<p><b>Pregnancy Category X Drugs:</b>  <i>Example: bosentan, ISOtretinoin</i></p>	
<p><b>Hypoglycemic Agents – Oral:</b>  <i>Examples: glyBURIDE, gliclazide, glimepiride</i></p>	<p><b>carBAMazepine</b></p>	<p><b>metFORMIN</b></p>
<p><b>Immunosuppressants:</b>  <i>Examples: azaTHIOprine, cycloSPORINE, tacrolimus</i></p>	<p><b>methotrexate</b></p>	<p><b>propylthiouracil</b></p>

**NOTE:** The above list of the most common high-alert medications is not all-inclusive.

## What is Tall Man Lettering?

ISMP recommends using mixed-case lettering (tall man lettering) to draw attention to the differences between similar drug names. This is particularly important to assist with the differentiation among some of the high-alert opioid medications such as fentaNYL, HYDROmorphone, oxyCODONE and traMADol. ISMP publishes a list of drug names and recommended formats for tall man lettering.

Learn more at [www.ismp.org/Tools/tallmanletters.pdf](http://www.ismp.org/Tools/tallmanletters.pdf)

## Background

This listing is adapted from:

- The ISMP 2011 List of High-Alert Medications in Community/Ambulatory Healthcare that looks at error reports submitted to the ISMP Medication Errors Reporting Program (ISMP MERP)
- Reports of harmful errors in medication literature
- Input from practitioners and safety experts

**Check with your Remedy'sRx Pharmacist for more information.**

## Tips for the Safe Use of High-Alert Medications

### Prescribing

Avoid the use of inappropriate or unclear abbreviations when ordering high-alert medications.

Ensure that medication reconciliation is completed promptly for all high-alert medication orders. It is important to confirm the dose of the medication and the time that the last dose was given before administering a high-alert medication.

### Storage

Avoid stocking multiple strengths of high-alert medications in the emergency stock box/contingency box.

Surplus high-alert medications should be promptly removed from all storage areas and placed with medications for disposal.

### Dispensing

Identify high-alert medications by printing "High Alert" on the label.

Use tall man lettering to help distinguish between sound-alike/look-alike medication names.

### Administration

Consider implementing an independent double-check of the administration of a high-alert medication wherever staffing levels permit.

### Monitoring

Be aware of all residents receiving high-alert medications. Monitor for any signs of over- or under-dosing, document this information in the resident's chart and report it to the prescriber.

Communicate any new orders or change orders for all high-alert medications to ensure all staff are aware of the changes and can monitor the resident appropriately.

### Follow Up

Educate the resident and/or family member about high-alert medications that have been ordered. Provide printed information if requested.

Report any medication incidents or near misses involving high-alert medications. This ensures the constant review of current practices with continuous quality improvements and implementation of new processes as needed.

## DID YOU KNOW?

- A list of high-alert medications should be posted in your medication room
- All residents receiving high-alert medications should be identified
- High-alert stickers may be applied to the spine of the chart and/or medication bin for any resident receiving a high-alert medication. These stickers are available from your Remedy'sRx Pharmacy
- Prescription labels will identify if a medication is high-alert

## To Crush or not to Crush High-Alert Medications



*Did you know that opening, crushing or chewing some high-alert medications can alter the absorption of these medications and increase the risk of adverse effects?*

*Crushing Pradaxa® (dabigatran) capsules can increase the absorption of the medication by 75 percent. This greatly increases the risk of serious adverse effects, including bleeding.*

*Long-acting opioids such as MS Contin®, Kadian®, HYDROMORPH Contin®, or OxyNeo® should not be crushed. Crushing may release the full dose of the drug all at once, rather than being slowly released over an extended period, and could result in symptoms of overdose.*

*Crushing chemotherapeutic (cytotoxic) or pregnancy category X drugs will increase the risk of unintentional exposure to the medication by the staff member administering the medication and others nearby.*

## Watch for Your Remedy'sRx High-Alert Medication Package

This package contains comprehensive information about high-alert medications including dosing, adverse effects, drug interactions, monitoring, precautions and tips on when to refer your resident to the physician.

**Speak with your Remedy'sRx Clinical Pharmacist for further information.**