

Canadian High-Alert Medication List



A high-alert medication is a medication that bears a heightened risk of causing significant harm when used in error.

This list is intended to assist care organizations in developing their own organization-specific high-alert medication list.

For further information about using this list refer to the [User Guide](#) and the ISMP Canada Safety [Bulletin](#).

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CMIRPS  **SCDPIM**
Canadian Medication Incident Reporting and Prevention System Système canadien de déclaration et de prévention des incidents médicamenteux

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- **Anesthetic and sedation agents, inhaled and intravenous**
 - (e.g., ketamine, propofol, sevoflurane)
- **Antithrombotic medications**
 - Anticoagulants, injectable (e.g., heparin, low-molecular-weight heparin)
 - Anticoagulants and coagulation factor inhibitors, oral (e.g., apixaban, rivaroxaban, warfarin)
 - Thrombolytics (e.g., alteplase)
 - Direct thrombin inhibitors (e.g., bivalirudin, dabigatran)
- **Cancer chemotherapy/antineoplastic medications**
(can be considered as entire class or as individual subclasses)
 - Alkylating agents (e.g., carmustine, cisplatin, cyclophosphamide)
 - Antimetabolites (e.g., fluorouracil, gemcitabine, methotrexate)
 - Antitumour antibiotics (e.g., bleomycin, doxorubicin)
 - Topoisomerase inhibitors (e.g., etoposide, topotecan)
 - Mitotic inhibitors (e.g., paclitaxel, vincristine)
 - Immune-modulating therapies (e.g., rituximab, trastuzumab)
 - Other antineoplastic therapies (e.g., asparaginase, eribulin, procarbazine)
- **Electrolyte and related intravenous solutions**
 - Calcium (all salts) at concentrations greater than or equal to 10%
 - Magnesium sulfate at concentrations greater than 20%
 - Potassium (all salts) at concentrations greater than or equal to 2 mmol/mL (2 mEq/mL)
 - Sodium acetate and sodium phosphate at concentrations greater than or equal to 4 mmol/mL
 - Sodium chloride at concentrations greater than 0.9%
 - Sterile water for injection in 1-litre bags
 - Dextrose at concentrations greater than 20%
- **Insulins**
- **Neuromuscular blockers/paralyzing agents**
 - (e.g., rocuronium, succinylcholine, vecuronium)
- **Opioids**
 - (e.g., buprenorphine/naloxone, fentanyl, hydrocodone, hydromorphone)
- **Medications with profound cardiovascular/physiologic effects**
 - Adrenergic agonists, intravenous (e.g., dopamine, epinephrine)
 - Adrenergic antagonists, intravenous (e.g., labetalol, phentolamine)
 - Antiarrhythmic medications, intravenous (e.g., amiodarone, lidocaine)
 - Inotropic medications, intravenous (e.g., dopamine, milrinone)
 - Vasodilating medications, intravenous (e.g., epoprostenol, nitroprusside)
 - Vasoconstricting medications, intravenous (e.g., vasopressin)
- **Medications for specific circumstances**
 - Medications given by epidural or intrathecal route
 - Medications known to be absolutely contraindicated in pregnancy (e.g., Drugs classified in FDA Pregnancy Category X, methotrexate, valproic acid)
 - Injectable or depot medications with long-acting effects (e.g., denosumab, depot-progesterone, leuprolide)
- **Specific medications or therapies**
 - Acetylcysteine, intravenous, when used as an antidote for acetaminophen overdose
 - Benzodiazepines, injectable (e.g., lorazepam, midazolam)
 - Cardioplegic solutions
 - Epinephrine, intramuscular or subcutaneous
 - Methotrexate, when used in non-oncologic indications
 - Oxytocin and analogues, injectable (e.g., carbetocin, oxytocin)