

# High Risk Medications

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# High Risk Medications

- High-alert medications are drugs that bear a heightened risk of causing significant patient harm or death when they are used in error.
- Example. Medications with low therapeutic windows, controlled substances and psychotherapeutic medications.

- Each organization has to define a list of high risk medication used in their organization.
- The process to prescribe the same shall be adhered to the national/ international guidelines and regulatory bodies viz ISMP.

## Classes/Categories of Medications

adrenergic agonists, IV (e.g., **EPINEPH**rine, phenylephrine, norepinephrine)

adrenergic antagonists, IV (e.g., propranolol, metoprolol, labetalol)

anesthetic agents, general, inhaled and IV (e.g., propofol, ketamine)

antiarrhythmics, IV (e.g., lidocaine, amiodarone)

antithrombotic agents, including:

- anticoagulants (e.g., warfarin, low molecular weight heparin, unfractionated heparin)
- direct oral anticoagulants and factor Xa inhibitors (e.g., dabigatran, rivaroxaban, apixaban, edoxaban, betrixaban, fondaparinux)
- direct thrombin inhibitors (e.g., argatroban, bivalirudin, dabigatran)
- glycoprotein IIb/IIIa inhibitors (e.g., eptifibatide)
- thrombolytics (e.g., alteplase, reteplase, tenecteplase)

cardioplegic solutions

chemotherapeutic agents, parenteral and oral

dextrose, hypertonic, 20% or greater

dialysis solutions, peritoneal and hemodialysis

epidural and intrathecal medications

inotropic medications, IV (e.g., digoxin, milrinone)

insulin, subcutaneous and IV

liposomal forms of drugs (e.g., liposomal amphotericin B) and conventional counterparts (e.g., amphotericin B desoxycholate)

moderate sedation agents, IV (e.g., dexmedetomidine, midazolam, **LOR**azepam)

moderate and minimal sedation agents, oral, for children (e.g., chloral hydrate, midazolam, ketamine [using the parenteral form])

opioids, including:

- IV
- oral (including liquid concentrates, immediate- and sustained-release formulations)
- transdermal

neuromuscular blocking agents (e.g., succinylcholine, rocuronium, vecuronium)

parenteral nutrition preparations

sodium chloride for injection, hypertonic, greater than 0.9% concentration

sterile water for injection, inhalation and irrigation (excluding pour bottles) in containers of 100 mL or more

sulfonylurea hypoglycemics, oral (e.g., chlorpro**PAMIDE**, glimepiride, gly**BURIDE**,

# The primary goals of implementing risk-reduction strategies are to:

- Prevent errors,
- Make errors visible,
- Mitigate harm,
- Understand the causes of errors
- CAPA

# Strategies to avoid HRME

- List of Medications should be made available at the place of dispensing and administrations of the drugs
- Education of staffs involved.
- Use Colored labeling and automated alerts
- Segregation and storage of these Medications separately.

- Limited access to these drugs
- Personal Preventive Equipment should be used to reduce the employee exposure to hazards.
- Standardized concentration, Container sizes and drugs used to treat specific conditions should be followed.
- HRM should be prescribed by the consultant doctor alone which should be written in capital.

# Targeted Audience

- Doctors
- Nurses
- Dispensing Pharmacist



# Frequency

- The targeted audiences are educated about the High Risk Medications during their Induction and re-sensitized at regular intervals which will be determined by the Drug & Therapeutic Committee.
- In case of any addition/ deletion of the High Risk Medication by the Drug & Therapeutic Committee, the High Risk Medication list should be updated and the target audience should be made aware this revised list once its edited.

**THANK YOU**