MEDICAL PHARMACIES TABLET

Drug information and news for health care providers

December 2013

INTRODUCTION

Last month we discussed adverse event assessment and disclosure as outlined in the "Required Organizational Practices" (ROPs) published by Accreditation Canada and reviewed in the Institute for Safe Medication Practices (ISMP) published safety bulletins. In this issue we will focus on practice protocols recommended by Accreditation Canada to reduce the risk of adverse event occurrences associated with the distribution of medications.

HIGH-ALERT MEDICATIONS (HAMs)

High-alert medications are those that have the potential to cause significant patient harm when administered in error.[1] High-alert medications include (not a comprehensive list): antithrombotic agents, adrenergic agents, chemotherapy agents, concentrated electrolytes, insulin, narcotics (opioids), neuromuscular blocking agents, and sedation agents. A comprehensive list can be found on the ISMP website at http://www.ismp.org/Tools/highalertmedications.pdf.

Clinical teams should have a comprehensive strategy for the management of high-alert medications.

SAFE USE OF HAMs

Medication policies should be in place in each practice location so that each practitioner can identify high-alert medications. This can be accomplished by creating a list of high-alert medications based on the particular medication formulary being utilized, and as informed by the organizational, provincial, or national medication error data.

STRATEGIES FOR SAFE USE OF HAMs

Following are a number of strategies for safe use of high-alert medications recommended by Accreditation Canada. These strategies/policies are especially important for use in high-risk client populations including the elderly, paediatrics, and neonates, as well as in transition points including admission, transfer, and discharge.[1]

- Standardize high-alert medication concentrations and volume options.
- Use pre-mixed solutions (commercially available and pharmacy prepared).
- Use programmable pumps with dosing limits and automated alerts.
- Use visible warning and auxiliary labels according to the organization's policy.
- Use patient-specific labelling for unusual concentrations.
- Limit access to high-alert medications in client service areas and routinely audit to assess for items that should be removed.
- Standardize the ordering, storage, preparation, administration, and dispensing of these products through the use of protocols, guidelines, dosing charts, and orders set (pre-printed or electronic).
- Segregate and provide directed access to reduce the likelihood of selection errors (e.g., use of automated dispensing cabinets in client service areas).
- Provide training about high-alert medications.
- Employ redundancies such as automated or independent double checks.

Specific strategies/policies should be in place for the safe use of concentrated electrolytes, heparin products, and narcotics (in accordance with Accreditation Canada's medication safety "Required Organizational Practices"). In addition, strategies/policies should be instituted that are specific to the circumstances of the particular location of practice.

Strategies/policies should be reviewed on a regular basis as part of an ongoing quality improvement process. Provision of information and staff training on the management of high-alert medications should be ongoing. **MPT**

1. Accreditation Canada. 2013 Required Organizational Practices Handbook.

Neupro® (rotigotine) Transdermal System

Neupro® is a transdermal patch dopamine agonist medication for the treatment of the signs and symptoms of idiopathic Parkinson's disease.[1] It may be used for early therapy, without concomitant levodopa, or as an adjunct to levodopa.

Neupro® is also used for the treatment of restless legs syndrome (RLS) in adults.

Neupro® is available in transdermal patches that deliver medication in the following amounts over a 24-hour period: 1 mg, 2 mg, 3 mg, 4 mg, 6 mg, 8 mg.

Dose & Administration

The recommended dosing of Neupro® for patients with **early-stage Parkinson's disease** is initially 2 mg/24 hrs and then increased in weekly increments of 2 mg/24 hrs to an effective dose up to a maximal dose of 8 mg/24 hrs. Most patients reach an effective dose within 3 or 4 weeks.

In patients with **advanced-stage Parkinson's disease**, a single daily dose of 4 mg/24 hrs should be initiated and then increased in weekly increments of 2 mg/24 hrs to an effective dose up to a maximal dose of 16 mg/24 hrs. In some patients, 4 mg/24 hrs or 6 mg/24 hrs may be effective doses. Most patients reach an effective dose within 3 to 7 weeks.

For **restless legs syndrome**, a single daily dose should be initiated at 1 mg/24 hrs. The dose may be increased in weekly increments of 1 mg/24 hrs up to a maximal dose of 3 mg/24 hrs.

Adverse Effects

Adverse events that have been reported in more than 10% of patients treated with Neupro® for Parkinson's disease include nausea, vomiting, dizziness, somnolence, application site reactions, and headache. For patients treated for restless legs syndrome, adverse events reported in more than 10% of patients include nausea, application site reactions, fatigue, and headache. Nausea and vomiting are more common when therapy is started. Adverse events are usually mild or moderate, and temporary.

Warnings and Precautions

As with other dopaminergic agents, Neupro® has been reported to cause patients to suddenly fall asleep while engaged in activities of daily living. Patients should be warned not to drive or engage in other activities where impaired alertness could put themselves and others at risk of serious injury or death. **DN**

Please refer to Neupro® product monograph for more comprehensive information.

Tudorza™ Genuair™

Tudorza™ Genuair™ is a long-term maintenance inhaled bronchodilator for the treatment of chronic obstructive pulmonary disease (COPD).[2] The active ingredient is aclidinium bromide, a long-acting muscarinic receptor antagonist (LAMA), also known as an anticholinergic agent. Tudorza™ Genuair™ is not indicated for treatment of acute bronchospasm (i.e., as rescue therapy).

Dose & Administration

The recommended dose of Tudorza™ Genuair™ is one inhalation (400 µg) of aclidinium bromide twice daily, once in the morning and once in the evening.

Adverse Effects

In clinical studies, 5.1% of patients receiving placebo and 4.6% of patients receiving Tudorza™ Genuair™ discontinued therapy. The most common adverse effects associated with use of Tudorza™ Genuair™ were headache (6.5% with drug vs. 5.0% with placebo) and nasopharyngitis (5.5% with drug vs. 3.9% with placebo).

Patients with unstable cardiac disease, QT prolongation, narrow-angle glaucoma, symptomatic prostatic hyperplasia, or bladder-neck obstruction were excluded from clinical trials. **DN**

Please refer to Tudorza™ Genuair™ product monograph for more comprehensive information.

1. UCB Canada Inc. Neupro® Product Monograph 2013.
2. Almirall Canada. Tudorza™ Genuair™ Product Monograph 2013.