

Nebule to Metered Dose Inhaler (MDI) with Spacer Therapeutic Interchange

What is this about?

A province wide therapeutic interchange (TI) for certain respiratory medications began March 1, 2017.

To reduce the risk of spread of infection, adverse effects to patients, drug exposure to staff and medical air/oxygen misconnect, any order for nebulized ipratropium (Atrovent), salbutamol (Ventolin), budesonide (Pulmicort) or ipratropium/salbutamol will be automatically changed to a metered-dose inhaler with spacer whenever possible by an authorized prescriber. This TI applies to all ages and settings (excludes neonates/NICU).

What are the results?

Evidence shows better and safer medication deposition is achieved by using MDI with spacer rather than nebulizer.

Some Alberta sites began successfully phasing out nebulizers and using MDI & spacer combinations as far back as the early 2000s; analysis confirms the feasibility and patient comfort with use of MDI with spacer in place of nebulizer. During the COVID pandemic, this firmly established practice strongly supported timeliest and safest delivery of respiratory medications.

This work was a joint effort between Provincial Pharmacy Services, Respiratory Health Section, Medicine Strategic Clinical Network (SCN) and Health Professions Strategy & Practice (HPSP).

For AHS & CH staff, please visit Insite HPSP → Resources to access the full toolkit.

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