



An Update of Pharmacotherapy during the COVID-19 Pandemic

Pharmacists expanded scope during the pandemic now include:

- **Renewing** a prescription for a controlled substance (narcotics, controlled drugs and targeted substances)
- **Adapting** a prescription for a controlled substance, including part filling or deprescribing
- Accepting a **verbal order** from a practitioner for a **controlled substance** (narcotics, controlled drugs and targeted substances)
- **Transferring** a prescription for a narcotic or controlled substance to another pharmacist in Ontario
- **Refilling** a benzodiazepine prescription or other targeted substance if more than a year has elapsed since the date it was written

Pharmacists are **required to notify the original prescriber** or primary care provider within a reasonable time after renewing or adapting a prescription.

Exceptional Access Program Update

- All EAP approvals that will expire between February 1, 2020 to May 31, 2020 are automatically **extended by 90 days from the original expiry date.**

Ontario Ministry of Health is recommending pharmacists dispense **no more than 30 days' supply of medications at a time.**

- This is being done to manage the medication supply to prevent drug shortages.
- COVID 19 has increased the demand for medications combined with a disruption in medication production due to lockdowns in India and parts of China.
- Note: Professional judgement can be used to provide a longer day's supply in exceptional cases with appropriate documentation
- Most community pharmacies will deliver medications, including controlled substances, to patients' home to avoid any unnecessary trips to the pharmacy.

Academic Detailing Update: **Need up to date information on COVID-19 related topics specific to primary care?**

The Centre for Effective practice has developed a resource that can be the one place you go to for all your COVID primary care needs, today, tomorrow and over the next number of months!

The resource, COVID-19: Clinical and Practical Guidance for Primary Care Providers, and a curated list of evidence-based supports, were developed and continue to be updated, to assist providers in assessment and testing, management, operations, PPE, infection protocol, and other areas impacting primary care due to the pandemic.

The COVID-19 Resource was developed by the Centre for Effective Practice in collaboration with the Department of Family Medicine at McMaster University, the Ontario College of Family Physicians and the Nurse Practitioners' Association of Ontario.

The TVFHT has two dedicated academic detailers (Tom Kontio and Katherine Koroluk) who are willing to meet with you remotely to introduce you to this tool and its many useful links. Your site specific FHT pharmacist will be contacting all Providers in the upcoming week to help you access our detailers and get started on using the tool. Watch for it.

Drug shortages

Inhalers are currently on allocation by wholesalers due to limited supply and increased demand by hospitals.

Currently unavailable	Drug Class	Alternatives																																				
Incruse Ellipta 62.5mcg (umeclidinium)	LAMA	Tudorza Genuair (aclidinium) 400mcg Inhale 1 puff twice daily																																				
		Seebri Breezhaler (glycopyrronium) 50mcg Inhale the contents of 1 capsule once daily																																				
		Spiriva Handihaler (tiotropium) 18mcg Inhale the contents of 1 capsule once daily																																				
		Spiriva Respimat (tiotropium) 2.5mcg Inhale 2 puffs once daily																																				
Asmanex Twisthaler 100mcg/200mcg (mometasone)	ICS	Use alternative inhaled corticosteroid. Medsask has put together a great resource on this topic. https://medsask.usask.ca/documents/drug-shortages-pdfs/fluticasone_shortage.pdf																																				
		<p>TABLE 2: ADULTS AND ADOLESCENTS ≥12 YEARS OF AGE^{6,10}</p> <table border="1"> <thead> <tr> <th rowspan="2">Medication</th> <th colspan="3">Total Daily Dose in mcg</th> <th rowspan="2">Doses per Day</th> </tr> <tr> <th>Low</th> <th>Medium</th> <th>High</th> </tr> </thead> <tbody> <tr> <td>Fluticasone propionate (Flovent[®]) pMDI & Diskus</td> <td>≤250</td> <td>251-500</td> <td>>500</td> <td>2</td> </tr> <tr> <td>Beclomethasone dipropionate (QVAR[®]) pMDI</td> <td>≤200</td> <td>201-400</td> <td>>400</td> <td>2</td> </tr> <tr> <td>Budesonide (Pulmicort[®]) Turbuhaler</td> <td>≤400</td> <td>401-800</td> <td>>800</td> <td>2</td> </tr> <tr> <td>Ciclesonide (Alvesco[®]) pMDI</td> <td>≤200</td> <td>201-400</td> <td>>400</td> <td>1 or 2*</td> </tr> <tr> <td>Fluticasone furoate (Arnuity[®]) Ellipta</td> <td>100</td> <td>N/A</td> <td>200</td> <td>1</td> </tr> <tr> <td>Mometasone furoate (Asmanex[®]) Twisthaler</td> <td>200</td> <td>201-400</td> <td>>400</td> <td>1 or 2*</td> </tr> </tbody> </table> <p>[†]Ciclesonide daily dose give once daily unless 800 mcg in which administered as 400 mcg twice daily.¹³ [*]Mometasone furoate: daily doses given as: 200 mcg: 200 mcg once daily; 400 mcg: 400 mcg once daily or 200 mcg twice daily; 800 mcg: 400 mcg twice daily¹⁴ N/A = not applicable; pMDI=pressurized metered dose inhaler</p>	Medication	Total Daily Dose in mcg			Doses per Day	Low	Medium	High	Fluticasone propionate (Flovent [®]) pMDI & Diskus	≤250	251-500	>500	2	Beclomethasone dipropionate (QVAR [®]) pMDI	≤200	201-400	>400	2	Budesonide (Pulmicort [®]) Turbuhaler	≤400	401-800	>800	2	Ciclesonide (Alvesco [®]) pMDI	≤200	201-400	>400	1 or 2*	Fluticasone furoate (Arnuity [®]) Ellipta	100	N/A	200	1	Mometasone furoate (Asmanex [®]) Twisthaler	200	201-400
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Flovent Diskus 500mcg (fluticasone)	ICS	Flovent Diskus 250mcg Inhale 2 puffs bid																																				

Potential Salbutamol backorder

Salbutamol is currently available, but demand is projected to exceed supply. The Canadian Thoracic Society has created handouts for the management of this shortage for COPD and asthma that can be found here: <https://cts-sct.ca/covid-19/>

Medication substitutions for Salbutamol in COPD

Preferred Substitution	
Terbutaline 0.5mg Turbuhaler (Bricanyl)	2 Inhalations of Salbutamol HFA 100mcg are equivalent to 1 inhalation of terbutaline 0.5mg
Covered by ODB	
Salbutamol 200mcg Diskus (Ventolin)	2 Inhalations of Salbutamol HFA 100mcg are equivalent to 1 inhalation of Salbutamol 200mcg diskus
NOT covered by ODB ~\$25 per device (60 doses)	
Ipratropium bromide (20mcg)/Salbutamol (100mcg) (Combivent Respimat)	The approved Health Canada dosing is: 1 inhalation every 4 hours as needed (max 6 inhalations per day)
Not available until April 20, 2020 Not covered by ODB ~\$50 per device (120 doses)	Patient on a long-acting anti-muscarinic (LAMA) should continue to use their maintenance medication as prescribed
Less Preferred Substitution	
Ipratropium bromide (Atrovent) 20mcg pMDI	Ipratropium has a slower onset of action ~ 15 mins vs ~ 5mins and a different mechanism of action
Covered by ODB	

2 inhalations of 20mcg would be equivalent to 2 inhalations of 100mcg salbutamol

The recommended dose is 2 inhalations every 4 hours to a maximum of 12 inhalations per day

Patient on a long-acting anti-muscarinic (LAMA) should continue to use their maintenance medication as prescribed

Adapted from: Canadian Thoracic Society: Inhaled Salbutamol Shortage- Mitigation Strategy for COPD

NOTE: Patients will need instruction on the proper use of their inhaler. Instructional videos can be found at: <https://cts-sct.ca/covid-19/how-to-properly-use-an-inhaler/>

Salbutamol Substitutions by Current Asthma Regimen

		Current Asthma Regimen				
		Short acting beta-agonist PRN	Daily ICS, LTRA	Daily Fluticasone/Salmeterol, Fluticasone/Vilanterol	Daily Budesonide/Formoterol	Daily Mometasone/Formoterol
Reliever Substitute (in order of preference [†])	Preferred	Budesonide/Formoterol Turbuhaler* ^ Terbutaline Turbuhaler* Salbutamol Diskus* Salbutamol Nebulized*#	Terbutaline Turbuhaler* Salbutamol Diskus* Salbutamol Nebulized*#	Terbutaline Turbuhaler* Salbutamol Diskus* Salbutamol Nebulized*	Budesonide/Formoterol Turbuhaler* Terbutaline Turbuhaler* Salbutamol Diskus* Salbutamol Nebulized*#	Terbutaline Turbuhaler* Salbutamol Diskus* Salbutamol Nebulized*#
	Alternative	Ipratropium/Salbutamol Respimat Ipratropium pMDI Mometasone/Formoterol pMDI Ipratropium/Salbutamol Nebulized # Ipratropium Nebulized #	Ipratropium/Salbutamol Respimat Ipratropium pMDI Formoterol Turbuhaler Ipratropium/Salbutamol Nebulized # Ipratropium Nebulized #	Ipratropium/Salbutamol Respimat Ipratropium pMDI Ipratropium/Salbutamol Nebulized # Ipratropium Nebulized #	Ipratropium/Salbutamol Respimat Ipratropium pMDI Formoterol Turbuhaler Ipratropium/Salbutamol Nebulized # Ipratropium Nebulized #	Ipratropium/Salbutamol Respimat Ipratropium pMDI Mometasone/Formoterol pMDI Formoterol Turbuhaler Ipratropium/Salbutamol Nebulized # Ipratropium Nebulized #
	If no other alternative	Levalbuterol pMDI (not currently available in Canada) Epinephrine pMDI (not currently available in Canada) Levalbuterol Nebulized* (not currently available in Canada) Orciprenaline PO*				

* Approved by Health Canada for use as a reliever in asthma, see Medications Substitutions Table for approved age of use and dosing suggestions

^ The use of budesonide/formoterol for use as reliever monotherapy has not been studied in children <12yo, in this age group short acting beta-agonist alternatives would be preferred

Nebulizing medication is an aerosol generating procedure, it is not recommended to use nebulized medication in suspected or confirmed COVID cases in the healthcare settings unless there are no alternatives

† Order of preference centered on evidence base, device type, license in Canada

We may not be at the clinics, but the pharmacist group are still available for consultations including drug information and medication assessment. We are not currently seeing patients in person but are able to provide virtual appointments or by phone.

In the news

Infectious Disease Society of America Guidelines on the treatment of COVID-19 infection:

<https://www.idsociety.org/practice-guideline/covid-19-guideline-treatment-and-management/>

Food for thought on the risks of using chloroquine, hydroxychloroquine and azithromycin for treating the COVID-19 infection: <https://www.cmaj.ca/content/cmaj/early/2020/04/08/cmaj.200528.full.pdf>

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