



Appendix C: Asthma Medication Table for Children and Youth Aged ≤18 Years

Note: see *Appendix D: Asthma Inhaler Guide* for pictures of the medications listed below.

Generic Name Trade name (formulation), Doses per device. Dose per inhalation.	Pediatric Dosage Information (ages < 6 years old) ¹⁻³	Pediatric Dosage Information (ages 6 – 18 years old) ¹⁻³	Cost per device (cost per dose)	PharmaCare Coverage [†]	Therapeutic Considerations ²
RELIEVER MEDICATIONS					
Short acting beta-agonists					
Salbutamol Airomir™, Ventolin®, Generics (pMDI), 200 doses. 100mcg/dose.	1 – 4 puffs up to q4h prn*	1 – 4 puffs up to q4h prn*	\$6.50 (\$0.03)	MDI: Regular Coverage	If ventolin is required every 4 hours, patient should be instructed to see a practitioner within 24 – 48 hours, if needed more than every 4 hours patient should go to the closest ER
Salbutamol Ventolin® Diskus® (DPI), 60 doses. 200mcg/dose.	DPI not recommended for children <6y	1 – 2 puffs up to q4h prn*	\$13 (\$0.22)	Diskus: No Coverage	Regular need for ventolin (>1 time/week) indicates poor asthma control.
Terbutaline Bricanyl Turbuhaler® (DPI), 100 or 200 doses. 500mcg/dose.	DPI not recommended for children <6y	1 – 2 puffs up to q4h prn	\$8 (\$0.80)	Regular Coverage	If terbutaline is required every 4 hours, patient should be instructed to see a practitioner within 24 – 48 hours. Regular need for terbutaline (>1 time/ week) indicates poor asthma control.

Generic Name Trade name (formulation), Doses per device. Dose per inhalation.	Pediatric Dosage Information (ages < 6 years old) ¹⁻³	Pediatric Dosage Information (ages 6 – 18 years old) ¹⁻³	Cost per device (cost per dose)	PharmaCare Coverage [†]	Therapeutic Considerations ²
CONTROLLER MEDICATIONS					
Inhaled Corticosteroid (ICS)**					
beclomethasone dipropionate Qvar™ HFA (pMDI), 200 doses. 50mcg, 100mcg/dose.	Low 50mcg bid Med 100mcg bid High refer to specialist <i>Approved age by Health Canada ≥ 5y</i>	Low 50-100mcg bid Med >100mcg bid High >200mcg bid	50mcg: \$34 (\$0.17) 100mcg: \$67 (\$0.34)	Regular Coverage	Symptom improvement is usually evident within 1 – 2 weeks after start of therapy, pulmonary function can take months to improve. Once asthma is well controlled for 3 months, consider stepping down to lowest effective dose.
Budesonide Pulmicort Turbuhaler® (DPI), 200 doses. 100, 200, 400 mcg/ dose.	DPI not recommended for children <6y	Low 100mcg bid Med 200-400mcg bid High >400mcg bid <i>Approved age by Health Canada ≥ 6y</i>	100mcg: \$34 (\$0.17) 200mcg: \$69 (\$0.34) 400mcg: \$100 (\$0.50)	Regular Coverage	Dysphonia, oral thrush (low with ciclesonide and can be reduced by rinsing mouth or using spacer device), sore mouth, sore throat.
Ciclesonide Alvesco® (pMDI), 120 doses. 100, 200 mcg/dose.	Low 100cg once daily Med 200mcg daily High refer to specialist	Low 100mcg once daily Med 200-400mcg daily High >400mcg daily <i>Approved age by Health Canada ≥ 6y</i>	100mcg: \$49 (\$0.41) 200mcg: \$81 (\$0.68)	Regular Coverage	High dose treatment should not be stopped abruptly, but tapered.
fluticasone propionate Flovent® HFA (pMDI), 120 doses. 50, 125, 250mcg/dose. Flovent Diskus (DPI), 60 doses. 50, 100, 250, 500mcg/dose.	Low 50mcg bid Med 100-125mcg bid High refer to specialist <i>Approved age by Health Canada ≥ 1y for MDI, ≥ 4y for Diskus</i>	Low ≤100mcg bid Med >100-200mcg bid High ≥200mcg bid	For 120 dose MDI: 50 mcg: \$26 (\$0.22) 125mcg: \$45 (\$0.37) 250mcg: \$89 (\$0.74) 50mcg: \$16.35 (\$0.27) For 60 dose Diskus: 100mcg: \$26 (\$0.43) 250mcg: \$45 (\$0.74) 500mcg: \$76 (\$1.49)	Regular Coverage	
Mometasone Asmanex Twisthaler™(DPI), 60 doses. 200, 400mcg per dose.	DPI is not recommended for children <6y	Low ≤200 daily Med >100-200mcg bid High >200mcg bid <i>Approved age by Health Canada ≥ 12y</i>	200mcg \$35 (\$0.58) 400mcg \$69 (\$1.15)	Regular Coverage	

Generic Name Trade name (formulation), Doses per device. Dose per inhalation.	Pediatric Dosage Information (ages < 6 years old) ¹⁻³	Pediatric Dosage Information (ages 6 – 18 years old) ¹⁻³	Cost per device (cost per dose)	PharmaCare Coverage [†]	Therapeutic Considerations ²
Inhaled Corticosteroid / Long-acting Beta-2 Agonist Combination (ICS/LABA)**					
budesonide/ formoterol Symbicort® Turbuhaler® (DPI), 120 doses. 100/6, 200/6mcg per dose.	Refer to specialist	Low 100/6mcg 1 doses bid Med 100/6 2 doses bid, 200/6mcg 1-2 doses bid High >200/6mcg 2 doses bid <i>Approved age by Health Canada ≥ 12y</i>	100/6mcg: \$69 (\$0.57) 200/6mcg: \$90 (\$0.75) per 120 dose turbuhaler (unit dose)	Limited Coverage <i>Special Authority Criteria:</i> <i>Diagnosis of asthma PLUS inadequate response on optimal dose of inhaled corticosteroid.</i>	Only prescribe for patients not adequately controlled on daily ICS treatment. High dose treatment should not be stopped abruptly, but tapered.
Fluticasone/ salmeterol Advair® (pMDI), 120 doses. 125/25, 250/25mcg per dose. Fluticasone/ salmeterol Advair® Diskus® (DPI), 60 doses. 100/50, 250/50, 500/50 mcg per dose.	Refer to specialist <i>Approved age by Health Canada ≥ 4y for Diskus</i>	Low 100mcg/50mcg bid Med >100-200mcg bid High ≥250/50mcg bid <i>Approved age by Health Canada ≥ 12y for MDI</i>	For 120 dose MDI: 125/25mcg: \$105 (\$0.88) 250/25mcg: \$149 (\$1.25) For 60 dose DPI: 100/50mcg: \$88 (\$1.47) 250/50mcg: \$105 (\$1.75) 500/50mcg: \$149 (\$2.49)	See: www.health.gov.bc.ca/pharmacare/sa/saindex.html#list	
Mometasone/ formoterol Zenhale™(pMDI), 120 doses. 50/5, 100/5, 200/5mcg per dose.	Refer to specialist	Low 50/5 µg -100/5 µg 1 dose bid Med 100/5mcg 2 doses bid 200/5mcg 1-2 doses bid High 200/5 µg <i>Approved age by Health Canada ≥ 12y</i>	50/5mcg: \$66 (\$0.88) 100/5mcg: \$86 (\$0.55) 200/5mcg: \$105 (\$0.72)		
Leukotriene receptor agonists					
Montelukast Singulair®, Generic (4 chew, granules, 5mg chew) (10mg tab)	4mg po daily <i>Approved age by Health Canada ≥ 2y</i>	5mg po daily (6 – 14y) 10mg po daily (≥15y)	4mg: \$36 (\$1.18) 5mg: \$39 (\$1.31) 10mg: \$58 (\$1.91) per 30 days (unit dose)	No Coverage	

Abbreviations: **bid:** twice daily; **cg:** centigrams; **DPI:** dry power inhaler; **ICS:** inhaled corticosteroids; **LABA:** long acting beta agonist; **MDI:** metered dose inhaler; **mcg:** micrograms; **mg:** milligrams; **pMDI:** pressurized metered dose inhaler; **po:** oral; **prn:** as needed; **q4h:** every 4 hours; **qid:** 4 times a day; **µg:** micrograms; **y:** years of age.

* Maximum approved dosing for salbutamol is 2 puffs qid however with asthma attacks, this dose can be increased as part of a patient's action plan.

**Dosing categories for ICS and ICS/LABA combinations are approximate and are based on a combination of approximate dose equivalency as well as safety and efficacy data.^{1,2}

Note: Please review product monographs at <http://hc-sc.gc.ca/dhp-mps/prodpharma/databasdon/index-eng.php> and regularly review current Health Canada advisories, warnings and recalls at www.hc-sc.gc.ca/ahc-asc/media/advisories-avis/index_e.html.

Pricing is approximate as per PharmaNet 2015/05/01 and does not include dispensing fee or additional markups.

[†] **PharmaCare Coverage Definitions**

Regular Coverage: also known as regular benefit; does not require Special Authority. Regular benefits may be fully or partially covered.Ω

Limited Coverage: requires Special Authority for coverage. Limited Coverage benefits approved by Special Authority may be fully or partially covered. Ω

No Coverage: also known as non-benefit; does not fit the above categories.

Ω Information on which products PharmaCare covers can be obtained using the B.C. PharmaCare Formulary Search (www.health.gov.bc.ca/pharmacare/benefitslookup). In all cases, coverage is subject to drug price limits set by PharmaCare and to the patient's PharmaCare plan rules and deductibles. See: www.health.gov.bc.ca/pharmacare/plans/index.html and www.health.gov.bc.ca/pharmacare/policy.html for further information.

References

- Loughheed MD, Lemiere C, Ducharme FM, et al. Canadian Thoracic Society 2012 guideline update: Diagnosis and management of asthma in preschoolers, children and adults. *Can Respir J* 2012; 19(2):127-64.
- U.S. Department of Health and Human Services, National Institutes of Health, National Heart, Lung and Blood Institute. Expert Panel Report 3: Guidelines for the Diagnosis and Management of Asthma. Full Report 2007.
- Global Initiative for Asthma. Global Strategy for Asthma Management and Prevention. 2015.