**Asthma Diagnosis & Management Algorithm**

**FOR PRIMARY CARE**

(algorithm abbreviations are listed in the appendix below)

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**PATIENT PRESENTS WITH ASTHMA SYMPTOMS**

(tough, dryness, chest tightness, wheezing, airways production, nocturnal symptoms/awakenings)

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**OBJECTIVELY CONFIRM DIAGNOSIS**

(CTS asthma guidelines cts-sct.ca/patientinfo-theory)

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**PHARMACOTHERAPY**

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**PRESCHOOLERS TO 1-5 YEARS OF AGE**

- If baseline maintenance medication is ICS/LABA (bud/form):
  - Prednisone 30-50mg for at least 5 days.
  - Do not exceed manufacturer’s recommended maximum daily dose for 7-14 days.
  - 2nd choice: Add prednisolone 30-50mg for at least 5 days.
- If baseline maintenance medication is ICS/LABA (bud/form) + SABA:
  - 2nd choice:
    - Add prednisolone 30-50mg for at least 5 days.

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**ASTHMA MANAGEMENT**

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**Non-Pharmacological (Education)**

- Refer to Certified Asthma/Respiratory Educator if available
- Discuss asthma pathophysiology, triggers, comorbidities, inhaler technique, reliever vs. controller, medication safety and side effects, adherence, asthma control
- Smoking cessation counselling where appropriate
- Create and review written Asthma Action Plan (for instruction on when there is loss of control)

**Daytime symptoms (dyspnea, cough, wheezing, chest tightness): ≤ 2 days/week

Night time symptoms: ≤ 1 night/week and mild

Activity/physical normal

Diurnal variability in PEFR: ≤ 10% over a 2 week period (readings morning and night)

Asthma exacerbations within the last 12 months: Mild, Infrequent

No absence from school/work due to asthma

Resources: Asthma Action Plan

Sputum eosinophils: ≤ 3%

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**CONSIDER REFERRAL TO A SPECIALIST**

- Not certain of diagnosis
- Sputum eosinophil monitoring
- Difficulty in determining baseline medication regimen
- Severe asthma requiring alternate therapy
- Recent ER/hospital admission or recurring exacerbations
- Severe asthma requiring alternate therapy
- History and risk of exacerbations
- Smoking history (and exposure to smoke)
- Family history of asthma/allergies

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**FOLLOW-UP**

- Regularly reassess control (every 3-4 months for preschoolers’), inhaler technique, adherence, triggers, comorbidities, asthma action plan
- Review medication regimen and consider modifying medication therapy (consider stepping down add-on therapy or decrease ICS dose if asthma is well controlled between visits)
- Review/Revised written Asthma Action Plan

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**APPENDIX:**

- **ACRONYMS**
- **BD:** Bronchodilator
- **CFID:** Chronic Obstructive Pulmonary Disease
- **CR:** Ciclosporin
- **CS:** Corticosteroid
- **D:** Diuretic
- **ER:** Emergency Room
- **EOT:** End of Treatment
- **FORM:** Formoterol
- **GERD:** Gastroesophageal Reflux Disease
- **HCP:** Health care professional
- **IC:** Inhaler Compromise
- **ICS:** Inhaled Corticosteroid
- **LABA:** Long-acting β2-Agonist
- **LAMA:** Long-acting Anticholinergic
- **LBA:** Leukotriene Receptor Antagonist
- **Mometasone:** Mometasone
- **PEF:** Peak Expiratory Flow
- **SAVA:** Salmeterol/Dx-Aerosol Agent
- **SABA:** Salmeterol/Fluticasone
- **SE:** Sputum Eosinophils
- **VCD:** Vascular Cytokine Dysfunction
- **VO2:** Percentage of predicted maximum oxygen uptake

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**Lung Health Foundation**

Algorithm and reference available at: hcp.lunghealth.ca/clinical-tools

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