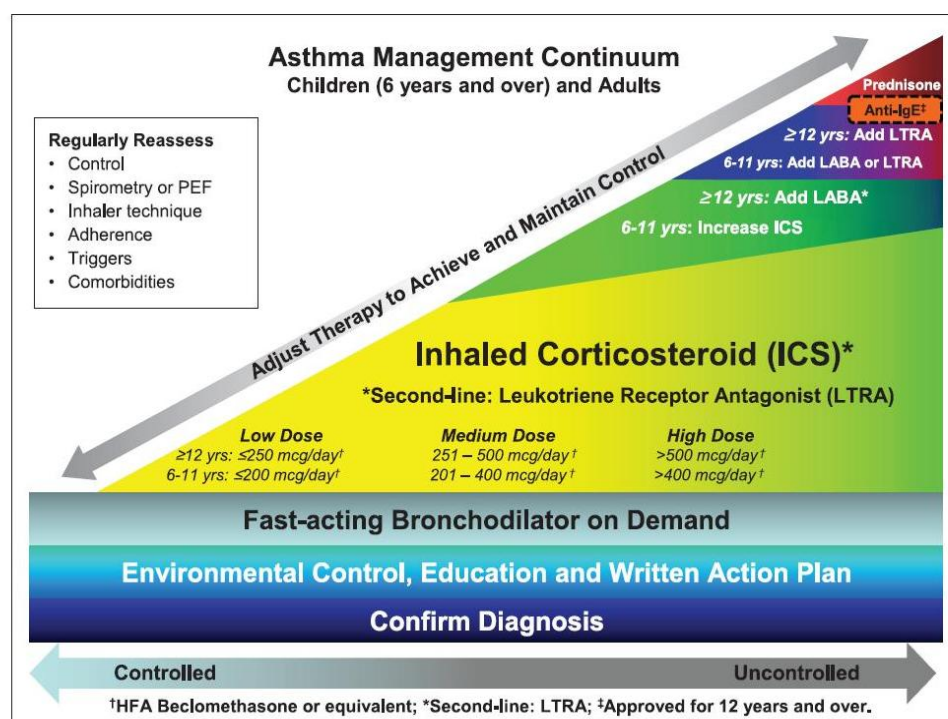


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PROTOCOL: Asthma



Glossary of Medication Acronyms:

SABA: short-acting beta agonist (e.g. salbutamol)

SABD: short-acting bronchodilator (e.g. ipratropium or SABA)

LABA: long-acting beta agonist (e.g. salmeterol)

ICS: inhaled corticosteroid (e.g. fluticasone)

LAAC: long-acting anticholinergic (e.g. tiotropium)

LTRA: leukotriene receptor antagonist (e.g. montelukast)

Algorithm from: Canadian Thoracic Society (CTS): Diagnosis and Management of Asthma...

The Canadian Consensus Conference on Management of Asthma¹ has produced a number of recommendations that address both assessment and management of the disease. A distinction in treatment is made between those agents that are Relievers, such as short acting β_2 agonists that are used to relieve acute intercurrent asthma symptoms, and Controllers which are used to control the disease. Where Controllers are required for management, first line therapy is recommended to be with use of inhaled glucocorticoids. Second line agents include long acting β_2 agonists. These are considered as add-on therapy where adequate control is not obtained with inhaled glucocorticoids.

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For coverage for long-acting β_2 -Agonists (e.g. salmeterol (Serevent®), formoterol (Foradil®, Oxeze®), fluticasone/salmeterol (Advair® MDI, Advair® Diskus, Symbicort® Turbuhaler®) for asthma within the continuing care centre setting, all of the following conditions must be met:

There must be a confirmed, objective diagnosis of asthma. Recommendations from the Consensus Conference are for spirometry, with a 12% (or 200mL) improvement in FEV₁ 15 minutes following use of a bronchodilator, variability of peak-expiratory-flow (PEF), or a positive methacholine or exercise challenge.

1. A Controller is required for maintenance therapy. For residents where symptoms are intermittent and readily managed with a Reliever (defined as less than 3 uses of a Reliever per week), a Controller is not indicated.
2. **Exception:** When budesonide/formoterol (Symbicort®) may be used as a Reliever in patients who have poor asthma control or frequent exacerbations despite fixed ICS/LABA dosing
3. Moderate to high dose inhaled glucocorticoids are being used without good control being maintained. Moderate to high dose inhaled glucocorticoids are defined as doses of beclomethasone of 500-1000 µg (total daily dose) or fluticasone 250-500 µg (total daily dose).
4. The addition of a LABA (preferably in a combination product with an ICS such as fluticasone/salmeterol or budesonide/formoterol) is preferred to using higher doses of an ICS alone. **The use of a LABA as monotherapy as a Controller is contraindicated due to an increased risk of death.**
5. 3rd line options include either increasing dose of ICS or adding a leukotriene receptor antagonist (LTRA). LTRAs (e.g. montelukast, zafirlast) are available via the non-formulary/special authorization process and will be considered on a case-by-case basis)

Reference:

1. Boulet, L *et al.* Summary of Recommendations from the Canadian Asthma Consensus Report, 1999. *CMAJ* (1999) 161:11 Suppl pp. S1-12.

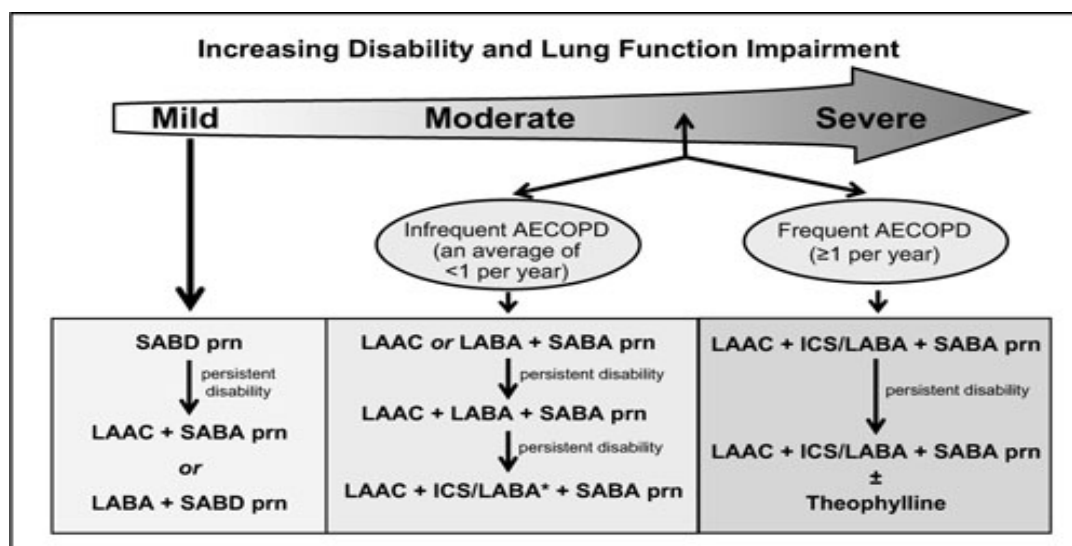
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- Lougheed MD, Lemiere C, Ducharme FM, et al; Canadian Thoracic Society Asthma Clinical Assembly. Canadian Thoracic Society 2012 guideline update: diagnosis and management of asthma in preschoolers, children and adults. Can Respir J 2012;19(2):127-64.

PROTOCOL: COPD

The Consensus Conference for management of COPD² provides guidelines for management of COPD. The management of COPD requires:

- Appropriate diagnosis.
- Encouragement of smoking cessation. (Smoking cessation **only** intervention shown to delay progression of COPD)
- A step-wise approach to management based on stage of disease, symptom management, and response to prior therapy.



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For coverage for COPD within the continuing care centre setting, the following conditions must be met:

- There must be a confirmed, objective diagnosis of COPD. The classifications for the stages of COPD, both in terms of spirometry assessment and symptomology are as below:

Score	Symptoms	Severity
0	Not troubled with breathlessness, except with strenuous exercise.	At risk
1	Troubled by shortness of breath when hurrying or walking up a slight hill.	Mild
2	Walks slower than people of the same age due to breathlessness; has to stop for breath when level walking at their own pace.	Moderate
3	Stops for breath after level walking ~100 yards, or after a few minutes.	Severe
4	Too breathless to leave the house; breathless when dressing or undressing.	Very Severe

Table 2. COPD staging by spirometry.

COPD stage	Spirometry (postbronchodilator)
Mild	FEV ₁ * ≥80% of predicted, FEV ₁ /FVC† <0.7
Moderate	FEV ₁ ≤50% to <80% of predicted, FEV ₁ /FVC <0.7
Severe	FEV ₁ ≤30% to <50% of predicted, FEV ₁ /FVC <0.7
Very severe	FEV ₁ <30% of predicted, FEV ₁ /FVC <0.7

*FEV₁: forced expiratory volume in 1 second †FVC: forced vital capacity

Source: Adapted from Canadian Thoracic Society recommendations

- Residents with activity related breathlessness but minimal disability (Mild COPD classification) should be managed with regular dosing of a short-acting β_2 -agonist, an inhaled anticholinergic

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(e.g. ipratropium), or a combination of the two and will not be eligible for a long-acting β_2 -agonist.

- Residents who are intolerant to or inadequately controlled by the use of maximum bronchodilator therapy with short-acting β_2 -agonists and anticholinergic inhalation are eligible for addition of a regularly scheduled long-acting β_2 -agonist. The intolerance or inadequate control may be on an historical basis. A short-acting β_2 -agonist may be continued on a prn basis for immediate symptom relief.

A trial of 4 weeks of a long acting β_2 -agonist with adequate monitoring is recommended. For continuing coverage beyond a 4 week period, there should be a demonstrable decrease in the use of the short acting beta agonists or anticholinergic, or a noticeable reduction in symptoms, especially, but not limited to nocturnal or early morning dyspnea.

- Residents who are intolerant or not adequately controlled by the use of maximum bronchodilator therapy with long-acting β_2 -agonists and anticholinergic inhalation are eligible for substitution of the anticholinergic with a regularly scheduled long-acting anticholinergic. The intolerance or inadequate control may be on an historical basis. A short-acting β_2 -agonist may be continued on a prn basis for immediate symptom relief.
- Residents, who are admitted to a continuing care centre receiving combination long acting anticholinergic therapy (e.g. tiotropium) and long acting β_2 -agonist therapy (LABA), are eligible for continued use of the long-acting anticholinergic.

Cross References:

Flow-Chart for the Use of Long Acting Anticholinergic

Reference:

- O'Donnell, DE et al. Can Respir J Vol 10 Suppl A May/June 2003
- O'Donnell, DE et al Canadian Thoracic Society recommendations for management of COPD Can Respir J 2008;15 (Suppl A): 1A-8A

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FLOW-CHART: LONG-ACTING ANTICHOLINERGIC

