



Asthma Management for Children and Adults

Consider the diagnosis of "asthma" if:

1. **RECURRENT** coughing, wheezing, or shortness of breath relieved by a bronchodilator
2. Objective response by spirometry ($\geq 12\%$ increase of FEV₁ post bronchodilator)
3. Rule out conditions such as aspiration, GERD, airway anomaly, foreign body, cystic fibrosis, vocal cord dysfunction, or COPD. GERD is a common co-morbidity. (If diagnosis in doubt, consult with an asthma specialist.)

Assess Asthma Severity: Persistent vs. Intermittent

Persistent Asthma

1. Symptoms > 2 days per week **OR**
2. Awaken at night from asthma $> 2X$ per month **OR**
3. Limitation of activities, despite pretreatment for exercise induced asthma **OR**
4. More than 2 steroid bursts in 1 year **OR**
5. FEV₁ $< 80\%$ predicted **OR** low FEV₁/FVC ratio (see below)
6. For children < 4 years consider "persistent" if more than 4 episodes of wheezing in a year **AND** parental history of asthma or eczema or wheezing between illnesses.

Treatment for Persistent Asthma: Daily Inhaled Corticosteroids (steps 2, 3 or higher)

Assess Response within 2-6 weeks

"Well Controlled" Asthma

1. Daytime symptoms < 2 days per week **AND**
2. Awakening at night from asthma $< 2X$ per month **AND**
3. No limitation of activities **AND**
4. Less than 2 steroid bursts per year
5. FEV₁ $\geq 80\%$ predicted
6. FEV₁/FVC \rightarrow

FEV ₁ /FVC:	
5-19 yrs	$\geq 85\%$
20-39 yrs	$\geq 80\%$
40-59 yrs	$\geq 75\%$
60-80 yrs	$\geq 70\%$

YES

NO

Follow the **Stepwise Approach Guideline** and consider *step down* if well controlled for 3 consecutive months. Then **re-assess every 3 to 6 months.**

Follow the **Stepwise Approach Guideline** and *step up* until well controlled is achieved. **Re-assess in 2 to 6 weeks.**

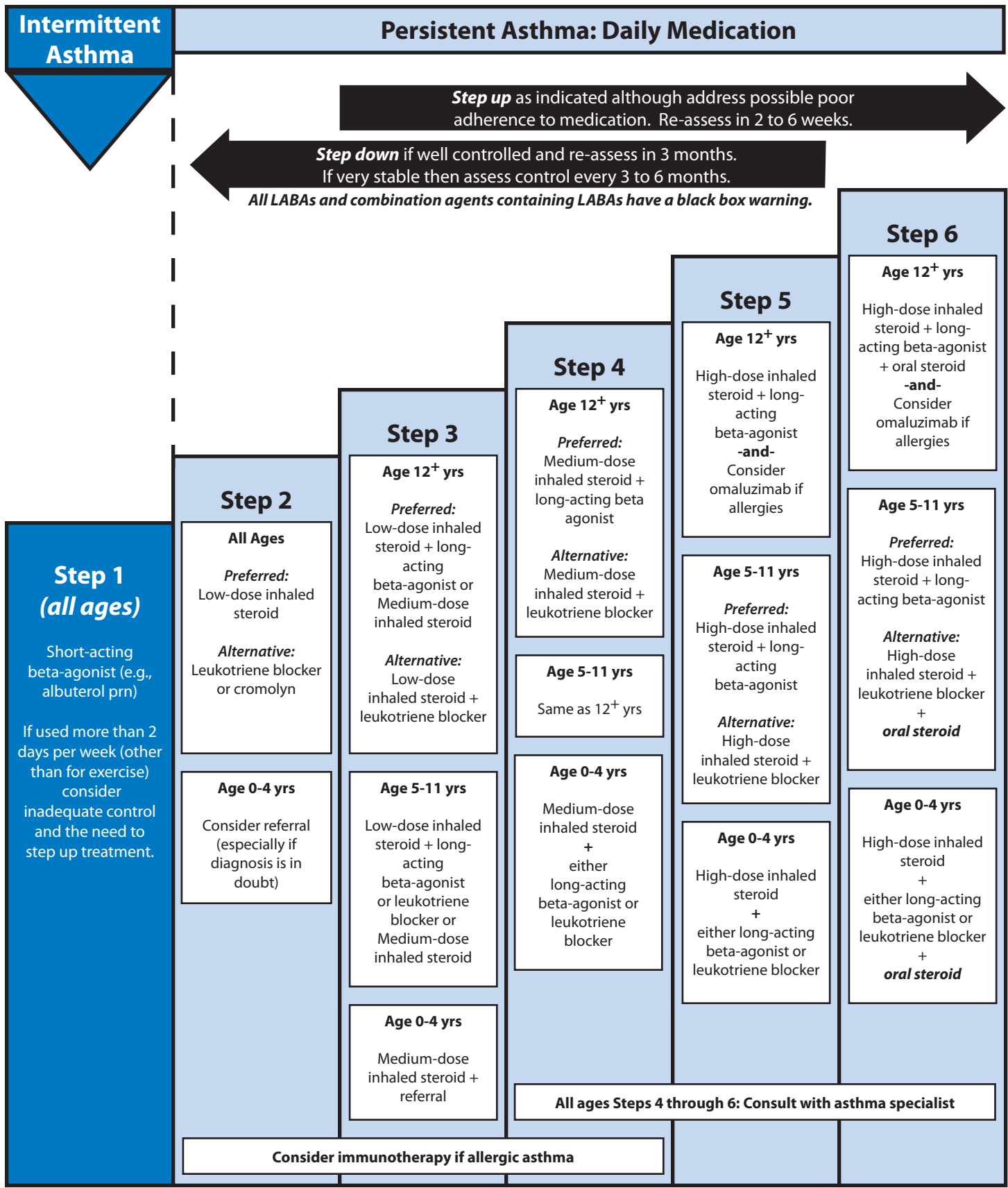
Quick Tips for All Patients with Asthma

- Environmental Control:** identify and avoid triggers such as tobacco smoke, pollens, molds, animal dander, cockroaches, and dust mites.
- Flu Vaccine:** recommend annually.
- Spirometry:** at diagnosis and at least annually.
- Asthma Score:** use tools such as ACQ[®], ACT[™] or ATAQ[®] to assess asthma control.
- Asthma Education:** review correct inhaled medication device technique every visit, if needed.
- Asthma Action Plan:** at diagnosis; review and update at each visit.
- Short-Acting Beta-Agonist (e.g., albuterol):** 1) for quick relief every 4-6 hours as needed (see step 1), 2) pretreat with 2 puffs for exercise-induced bronchospasm 10-60 minutes before exercise.
- Oral Corticosteroids:** consider for acute exacerbation.
- Spacer with Valve:** if spacer selected, use spacer with valve.
- Mask:** use with spacer with valve and with nebulizer for children < 5 years and anyone unable to use correct mouthpiece technique.

See www.coloradoguidelines.org for additional asthma management resources.

Consider referral to a specialist if not well controlled within 3-6 months using stepwise approach **OR** 2 or more ED visits or hospitalizations for asthma in a year.

Asthma Stepwise Approach



Adapted from the NAEPP 3: <http://www.nhlbi.nih.gov/guidelines/asthma/>. This guideline is designed to assist the clinician in the management of asthma. This guideline is not intended to replace the clinician's judgment or establish a protocol for all patients with a particular condition. For references, additional copies of the guideline, or patient documents go to www.coloradoguidelines.org or call (720) 297-1681 or 866-401-2092. This publication was supported by cooperative agreement #2U59EH824177-04 Revised, from the Centers for Disease Control and Prevention (CDC). Its contents are solely the responsibility of the authors and do not necessarily represent the official views of CDC. This Guideline was originally developed by Colorado Clinical Guidelines Collaborative.