

Make the Diagnosis

1. Consider the diagnosis of asthma if symptoms include: **recurrent** coughing, wheezing or shortness of breath relieved by a bronchodilator.
2. Spirometry: $\geq 12\%$ increase of FEV₁ post-bronchodilator.
3. Consider co-morbidities or alternate diagnosis, especially if poor control: GERD, aspiration, airway anomaly, foreign body, cystic fibrosis, vocal cord dysfunction, tobacco/secondhand smoke exposure, or COPD. GERD is a common co-morbidity.
4. If diagnosis in doubt, consult with an asthma specialist.

Key Points of Assessment and Treatment

1. Asthma is a variable disease and needs to be assessed at **every** visit.
2. Use the Assess Asthma Control box to guide your assessment and make treatment decisions.
3. The goal of asthma therapy is to keep the patient in control as much as possible with the least amount of medication.
4. If at the first visit the patient is not well-controlled (see below), begin controller therapy. A patient should be diagnosed with Persistent Asthma if he/she needs a daily controller medication to stay in control.

Exercise-Induced Bronchospasm (EIB)

- If symptoms resolve without treatment after 5 minutes of rest, it is more likely poor conditioning.
- If EIB is unresponsive to albuterol and the patient has allergies, consider starting an inhaled steroid (see *Stepwise Treatment table on page 2*).
- If still unresponsive after starting inhaled steroid, refer to specialist.

Assess Asthma Control (determination of level of control is dictated by the criterion at the lowest level of control)

Criterion	Well-Controlled	Not Well-Controlled	Very Poorly Controlled
Daytime symptoms	≤ 2 days/week	> 2 days/week	Throughout the day
Nighttime awakenings	≤ 2 times/month	1-3 times/week	≥ 4 times/night
Limitation of activities	None	Some limitation	Extremely limited
Short-acting beta ₂ -agonist use for symptom control (not prevention of EIB)	≤ 2 days/week	> 2 days/week	Several times per day
Asthma Control Test (ACT) [†]	Score of ≥ 20	Score of 16-19	Score of ≤ 15
Courses of prednisone in last year	< 2	≥ 2	≥ 2
Spirometry [‡]	FEV ₁ % predicted	$> 80\%$ predicted or personal best	$< 60\%$ predicted or personal best
	FEV ₁ /FVC ratio	Normal ratio for age	$\leq 5\%$ decrease in ratio for age

FEV₁/FVC:

- 5-19 yrs $\geq 85\%$
- 20-39 yrs $\geq 80\%$
- 40-59 yrs $\geq 75\%$
- 60-80 yrs $\geq 70\%$

If Well-Controlled:

Follow the **Stepwise Approach Guideline** (see page 2). Consider *step down* if well-controlled for 3 consecutive months. **Re-assess every 1 to 6 months.**

If Not Well-Controlled:

Follow the **Stepwise Approach Guideline**. If initial visit, start at Step 2. *Step up* until well-controlled. **Re-assess in 2 to 6 weeks.** For side effects, consider alternative treatment.

If Very Poorly Controlled:

Consider course of prednisone (1-2 mg/kg, daily max 60 kg). If initial visit, start at Step 2. Step up 1-2 steps using **Stepwise Approach Guideline**. **Re-assess in 2 weeks.**

Consider Referral to a Specialist

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

[†]For the full ACT go to www.healthteamworks.org/guidelines/asthma.html

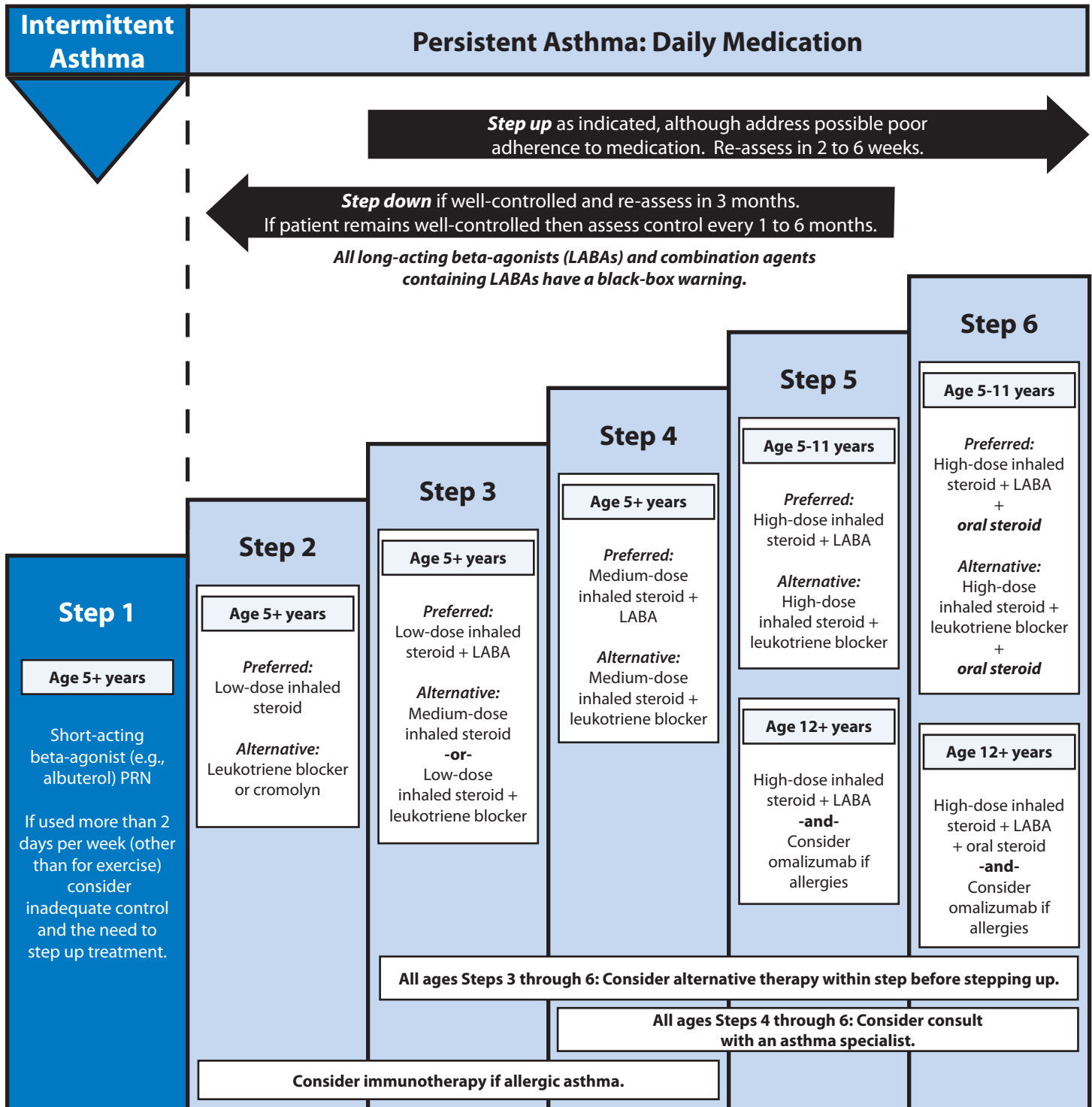
[‡]Spirometry is suggested annually and/or any time the clinical picture changes or does not make sense.

Other Things to Consider at Every Visit

- Check adherence and address possible poor adherence to medication.
- Review environmental factors: e.g., pets, cigarette smoke, perfume, allergy season, respiratory infection.
- Provide self-management education.
- Develop and review a written asthma control plan in partnership with the patient.
- Integrate education into all points of care where healthcare professionals interact with patient.
- Review inhaler technique. Encourage use of spacers with all MDIs.
- Treat co-morbid conditions: rhinitis and sinusitis, obesity, gastroesophageal reflux, obstructive sleep apnea, stress, depression or anxiety, allergic bronchopulmonary aspergillosis.

Asthma Stepwise Approach

Good asthma control reduces the risk of exacerbations and long-term pulmonary damage.



Schedule Follow-Up Care

Frequency of follow-up visits based on severity:

- Step 1-2: 1-2x per year
- Step 3-4: Every 6 months
- Step 5-6: Every 3 months