Asthma Stepwise Formulary FOR DAILY CONTROL MEDICATION

abbreviations:

- ICS: inhaled corticosteroid
- LABA: long-acting beta,-agonist
- LTRA: leukotriene receptor antagonist
- **SABA:** short-acting beta₃-agonist

step 2

0-4 YRS

LOW-DOSE ICS (mark choice):

- ☐ fluticasone (Flovent) MDI: 44 mcg: 2 puffs twice daily
- budesonide (Pulmicort) respules: 0.25 mg: 1 respule twice daily

step 1

NO DAILY CONTROL MEDICATION. needed in all steps,

5-11 YRS

LOW-DOSE ICS (mark choice):

- ☐ fluticasone (Flovent) MDI: 44 mcg: 1-2 puffs twice daily
- ☐ beclomethasone (Ovar) MDI: 40 mcg: 1-2 puffs twice daily
- □ budesonide (Pulmicort) DPI: 90 mcg: 1-2 inhalations twice daily
- ☐ budesonide (Pulmicort) respules: 0.25 mg: 1 respule twice daily
- mometasone (Asmanex) DPI: 110 mcg: 1 inhalation once daily

12 YRS to ADULT

LOW-DOSE ICS (mark choice):

- ☐ fluticasone (Flovent) MDI: 44 mcg: 1-3 puffs twice daily
- ☐ beclomethasone (Qvar) MDI: 40 mcg: 1-3 puffs twice daily
- □ budesonide (Pulmicort) DPI: 180 mcg: 1 inhalation twice daily
- ☐ mometasone (Asmanex) DPI: 220 mcg: 1 inhalation once daily

Consult with asthma specialist for steps 3 and above

step 4

0-4 YRS

(per step 3; mark a choice there)

1 packet oral granules once daily

5-11 YRS

4 mg: 1 tablet once daily, or

□MEDIUM-DOSE ICS

☐+ LTRA: montelukast

(Singulair) by mouth:

☐ LABA (per step 3)

(mark choice):

(mark choice):

+ MEDIUM-DOSE ICS

☐ fluticasone (Flovent) MDI:

110 mcg: 1 puff twice daily

☐ beclomethasone (Qvar) MDI:

□ budesonide (Pulmicort) DPI:

80 mcg: 1-2 puffs twice daily

□ budesonide (Pulmicort) respules:

0.50 mg: 1 respule twice daily

220 mcg: 1 inhalation once daily

12 YRS to ADULT

☐ fluticasone (Flovent) MDI:

110 mcg: 1-2 puffs twice daily

80 mcg: 2-3 puffs twice daily

180 mcg: 2-3 inhalations twice daily

220 mcg: 1-2 inhalations once daily

☐ beclomethasone (Qvar) MDI:

☐ budesonide (Pulmicort) DPI:

mometasone (Asmanex) DPI:

mometasone (Asmanex) DPI:

180 mcg: 1-2 inhalations twice daily

0-4 YRS

MEDIUM-DOSE ICS (mark choice):

step 3

- ☐ fluticasone (Flovent) MDI: 110 mcg: 1 puff twice daily
- □ budesonide (Pulmicort) respules: 0.50 mg: 1 respule twice daily

5-11 YRS

EITHER...

- ☐ LOW-DOSE ICS
- (per step 2: mark a choice there)
- ☐ + LABA: salmeterol (Serevent) DPI: 50 mcg: 1 inhalation twice daily
- ☐ + LTRA: montelukast (Singulair) by mouth: 5 mg: 1 tablet once daily

□MEDIUM-DOSE ICS

(per step 4; mark a choice there)

12 YRS to ADULT

□LOW-DOSE ICS

T+ LABA (or LTRA); salmeterol (Serevent) DPI:

(per step 4; mark a choice there)

step 5

0-4 YRS

- ☐ LTRA (per step 4)
- + HIGH-DOSE ICS (mark choice):
- ☐ fluticasone (Flovent) MDI: 110 mcg: 2 puffs twice daily
- ☐ budesonide (Pulmicort) respules: 1.0 mg: 1 respule twice daily

5-11 YRS

- ☐ LABA (per step 3)
- + HIGH-DOSE ICS (mark choice):
- ☐ fluticasone (Flovent) MDI: 110 mcg: 2 puffs twice daily
- ☐ beclomethasone (Qvar) MDI: 80 mcg: 2-3 puffs twice daily
- ☐ budesonide (Pulmicort) DPI: 180 mcg: 3 inhalations twice daily
- ☐ budesonide (Pulmicort) respules: 1 mg: 1 respule twice daily
- mometasone (Asmanex) DPI: 220 mcg: 2 inhalations once daily

12 YRS to ADULT

- ☐ LABA (per step 3)
- + HIGH-DOSE ICS (mark choice):
- ☐ fluticasone (Flovent) MDI: 220 mcg: 1-2 puffs twice daily
- ☐ beclomethasone (Ovar) MDI: 80 mcg: 3-4 puffs twice daily
- ☐ budesonide (Pulmicort) DPI: 180 mcg: 3-4 inhalations twice daily
- mometasone (Asmanex) DPI: 220 mcg: 2-3 inhalations once daily

step 6

0-4 YRS

- ☐ HIGH-DOSE ICS (per step 5)
- ☐ + LTRA (per step 4)
- ☐ + oral systemic steroids

(lowest dose for the shortest duration: 5-10 mg is considered low-dose)

5-11 YRS

THIGH-DOSE ICS (per step 5)

- ☐ + LABA (per step 4)
- ☐ + oral systemic steroids

(lowest dose for the shortest duration: 5-10 mg is considered low-dose)

12 YRS to ADULT

- ☐ HIGH-DOSE ICS (per step 5)
- ☐ + LABA (per step 4)
- ☐ + oral systemic steroids

(lowest dose for the shortest duration: 5-10 mg is considered low-dose)

Inside the QuickGuide...

2014 QuickGuide to

for the care of pediatric and adult patients

and treatment adjustment

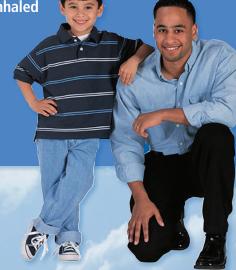
with established asthma

A tool for ongoing assessment

- Asthma control tables
- Daily dose chart for inhaled corticosteroids (ICS)

Stepwise medication therapy

Intermountain Healthcare Healing for life"



Asthma Control

For a comprehensive summary of evidence-based guidelines

for asthma diagnosis and treatment, see Intermountain's

Asthma Care Process Model (CPM) online at

intermountainhealthcare.org/clinicalprograms

☐ LABA (or LTRA) (per step 3) + MEDIUM-DOSE ICS

EITHER...

- (per step 2; mark a choice there)
- 50 mcg: 1 inhalation twice daily

□MEDIUM-DOSE ICS

Check ICE before stepping up therapy; also, *if alternative* **medication** therapy is used and response is inadequate, **switch to preferred treatment** before stepping up.

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- Check Inhaler technique
- Check **C**ompliance
- Check **E**nvironmental history and trigger management

Follow up: Depending on severity, assess asthma control in 2 to 6 weeks after medication is initiated or stepped up. If no clear benefit is observed in 4 to 6 weeks, consider adjusting therapy or alternative diagnoses.

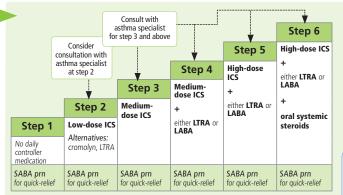
The level of asthma control is based on the most severe impairment or risk category. ALL components — including spirometry — are important for assessing control. Asthma Control tables. See the Asthma Care Process Model (CPM) for a full summary of evidence-based guidelines: intermountainhealthcare.org/clinicalprograms

Asthma CONTROL classifications

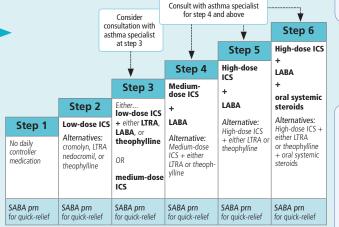
Patients age 0 to 4 years **CONTROL** components Well controlled Not well controlled Very poorly controlled Throughout the day ≤ 2 days/week >2 days/week Symptoms **Impairment** Nighttime awakenings < 1 time/month >1 time/month >1 time/week Interference with normal activity None Some limitation Extremely limited SABA use for Sx (NOT EIB-prevention ≤ 2 davs/week >2 days/week Several times/day Exacerbations requiring Risk 0 to 1 time/year 2 to 3 times/year >3 times/year oral corticosteroids Medication side effects can vary in intensity from none to very troublesome and worrisome. Treatment-related adverse effects The level of intensity does not correlate to specific levels of control but should be considered in the overall assessment of risk. Recommended actions Maintain current medication. Step up current medication (one step)and reassess Consider a short course of oral systemic corticosteroids based on level of control control in 2 to 6 weeks. Reinforce education and trigger management. Step up current medication (one or two steps)* and reassess If no clear benefit in 4 to 6 weeks. control in 2 weeks. Follow up every 1 to 6 months. consider alternative diagnoses or adjusting therapy. · If no clear benefit in 4 to 6 weeks, consider alternative Consider stepping down medication therapy For side effects, consider alternative treatment options. diagnoses or adjusting therapy at conclusion of winter viral season if well For side effects, consider alternative treatment options. controlled for at least 3 months. Reinforce education and trigger management Reinforce education and trigger management Patients age 5 to 11 years Asthma CONTROL classifications **CONTROL** components Well controlled Not well controlled Very poorly controlled <2 days/week but not more than once each day >2 days/week or multiple times on \leq 2 days/week Throughout the day **Impairment** Nighttime awakenings <1 time/month >2 times/month >2 times/week Interference with normal activity None Some limitation Extremely limited SABA use for Sx (NOT EIB-prevention) <2 days/week >2 days/week Several times/day • FEV, or peak flow >80% predicted/personal best • FEV, or peak flow 60% to 80% predicted/personal best | • FEV, or peak flow <60% predicted/personal best Lung function/spirometry FEV./FVC >80% FEV./FVC 75% to 80% FEV./FVC <75% 0 to 1 time/year ≥2 times/vear Exacerbations requiring Risk oral corticosteroids Consider severity and interval since last exacerbation. Reduction in lung growth Evaluation requires long-term follow-up. Possible medication side effects can vary in intensity from none to very troublesome and worrisome. Treatment-related adverse effects The level of intensity does not correlate to specific levels of control but should be considered in the overall assessment of risk. Recommended actions Maintain current medication. • Step up current medication (one step) and reassess Consider a short course of oral systemic corticosteroids. based on level of control Reinforce education and trigger management. control in 2 to 6 weeks. Step up current medication (one or two steps) and reassess Follow up every 1 to 6 months. For side effects, consider alternative treatment options. control in 2 weeks. Consider stepping down medication therapy For side effects, consider alternative treatment options. Reinforce education and trigger management. at conclusion of winter viral season if well Reinforce education and trigger management controlled for at least 3 months Patients age 12 years to adult **Asthma CONTROL classifications CONTROL** components Well controlled Not well controlled Very poorly controlled <2 days/week Throughout the day Symptoms > 2 davs/week **Impairment** Nighttime awakenings <2 times/month 1 to 3 times/week ≥4 times/week Interference with normal activity None Some limitation Extremely limited SABA use for Sx (NOT EIB-prevention) ≤2 days/week >2 days/week Several times/day FEV, or peak flow >80% predicted/personal best FEV, or peak flow 60% to 80% predicted/personal best FEV, or peak flow < 60% predicted/personal best Lung function/spirometry Questionnaire (ACT: Asthma Control Test) ACT score = ≥ 20 ACT score = 16 to 19 ACT score = ≤ 15 0 to 1 time/year > 2 times/year Risk Exacerbations Consider severity and interval since last exacerbation Progressive loss of lung function Evaluation requires long-term follow-up. Possible medication side effects can vary in intensity from none to very troublesome and worrisome. Possible treatment-related adverse effects The level of intensity does not correlate to specific levels of control but should be considered in the overall assessment of risk Recommended actions Maintain current medication. **Step up** current medication (one step) and reassess **Consider** a short course of oral systemic corticosteroids based on level of control Reinforce education and trigger management. control in 2 to 6 weeks. Step up current medication (one or two steps) and reassess Follow up every 1 to 6 months. For side effects, consider alternative treatment options. control in 2 weeks. Consider stepping down medication therapy · Reinforce education and trigger management. For side effects, consider alternative treatment options at conclusion of winter viral season if well · Reinforce education and trigger management controlled for at least 3 months

Stepwise medication therapy for asthma

- Initiate stepwise therapy based on severity classification at diagnosis.
- Manage asthma triggers and educate patient/family at each step.
- Adjust therapy based on control tables at left: step up when necessary, step down when possible.



For daily doses of ICS for each age group, see the back of this QuickGuide.



Abbreviations:

- ICS: inhaled corticosteroid
- LABA: long-acting beta,-agonist;
- LTRA: leukotriene receptor antagonist
- SABA: short-acting beta,-agonist

