



Asthma Echo Program GINA Guideline Overview Children under 5 yo

Terri Magruder, MD, MPH

UAB MEDICINE
PEDIATRICS



Disclosure Summary

- Planners, Content Reviewers and Speakers for this activity:
 - Did provide disclosure information.
 - Have no relevant financial arrangements or affiliations with commercial interests
 - May discuss commercial products/services and/or non-FDA approved uses of products/providers of services.
- Commercial Support

This activity receives no commercial support.

GINA 2023

- WHO and NHLBI collaborated to develop GINA in 1993
- It is a global evidenced based strategy that can be adapted for local health systems
 - Careful attention to study design, population and clinical relevance
- Updated **annually**
- Resource: <https://ginasthma.org/pocket-guide-for-asthma-management-and-prevention/>



Common themes of GINA and NHLBI are chronic disease management, shared decision-making, and movement towards combining ICS with SABA or Formoterol for quick relief

• *Proud to be celebrating the 30th year of GINA* •

Signs and Symptoms of Asthma

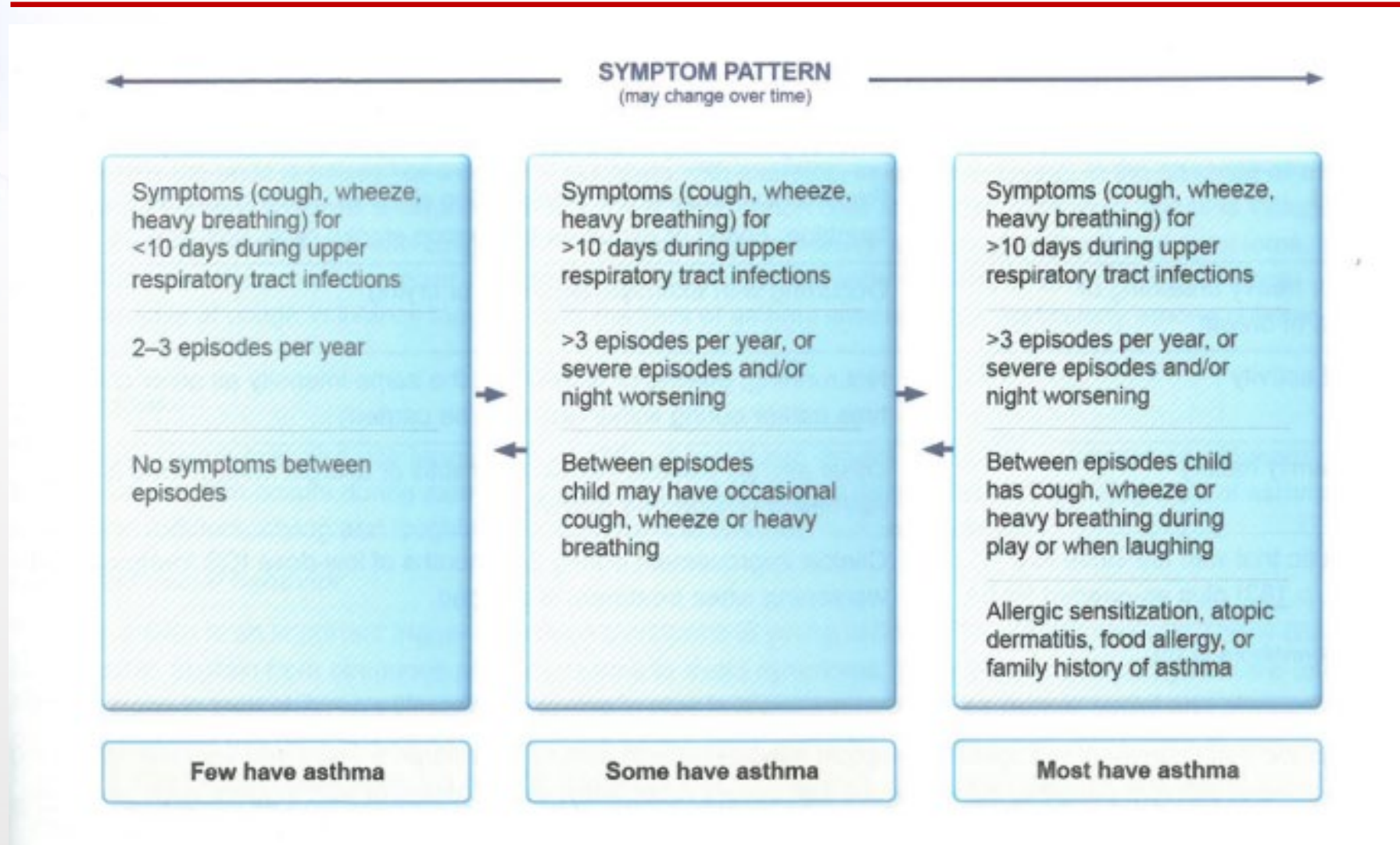
- Recurrent or Episodic Symptoms of:
 1. Wheezing (musical; polyphonic)
 2. Nocturnal or Frequent Cough
 3. Chest Tightness
 4. Shortness of Breath

These symptoms often are worse or occur with exercise, viral infections, weather changes, allergen or environmental irritant exposure, strong emotions, and stress

Differential Diagnosis

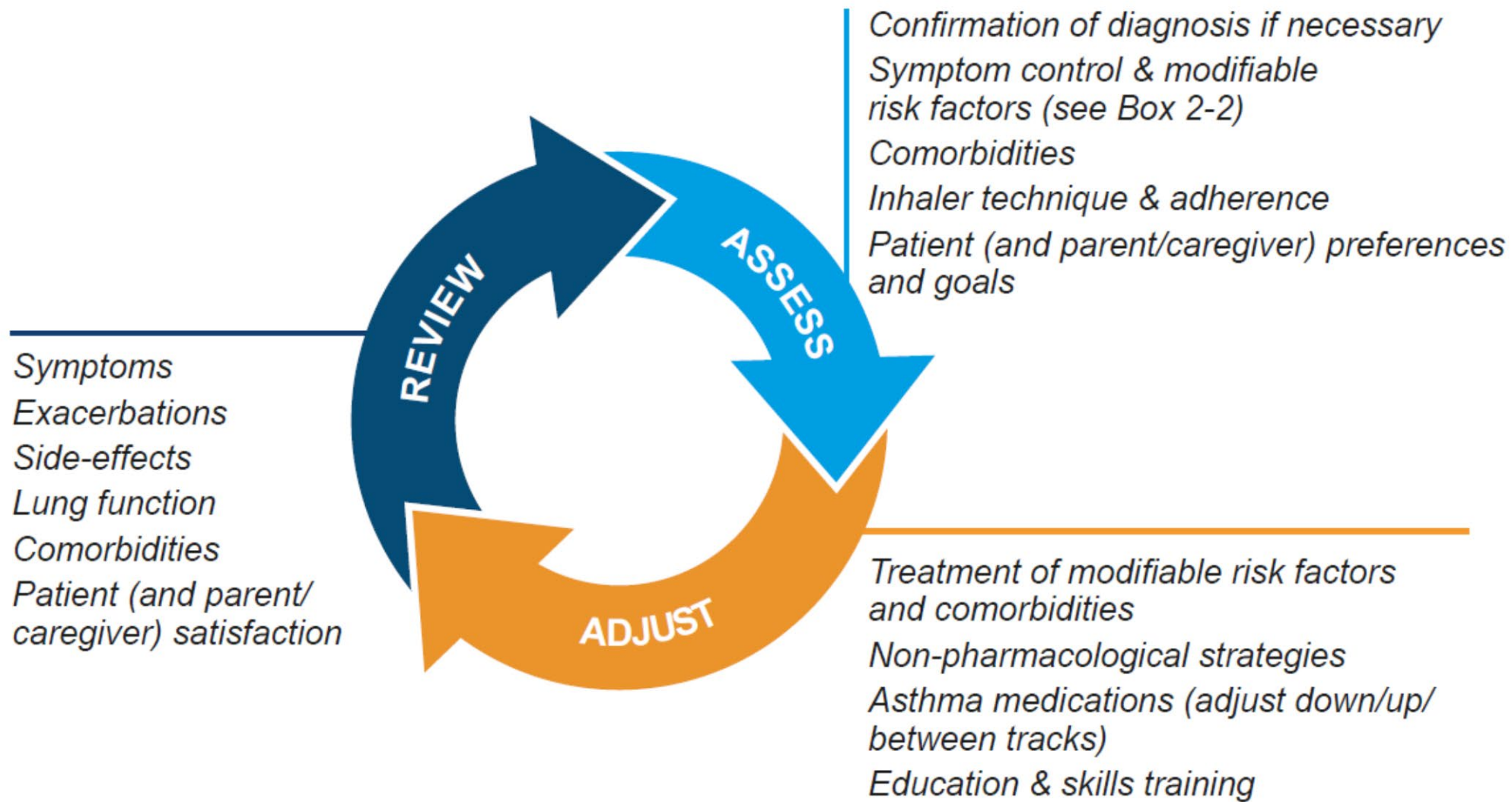
- Asthma
- Recurrent viral infections
- Aspiration
- Airway malacia
- Foreign body
- Pertussis
- Persistent bacterial bronchitis
- Congenital heart disease
- Cystic Fibrosis
- Primary Ciliary Dyskinesia
- Vascular Ring
- Bronchopulmonary Dysplasia
- Immune deficiency

Probability of Asthma Diagnosis in Children 5 Years and Younger



Risk factors for asthma exacerbations

- Poorly controlled asthma
- One or more severe exacerbations in the previous year
 - ED, hospitalizations, or OCS
- Start of child's usual flare up season
- Exposures such as tobacco, indoor allergen exposure, or outdoor air pollution
- Major psychological or socio-economic problems for child or family
- Poor adherence with ICS medications, incorrect inhaler technique



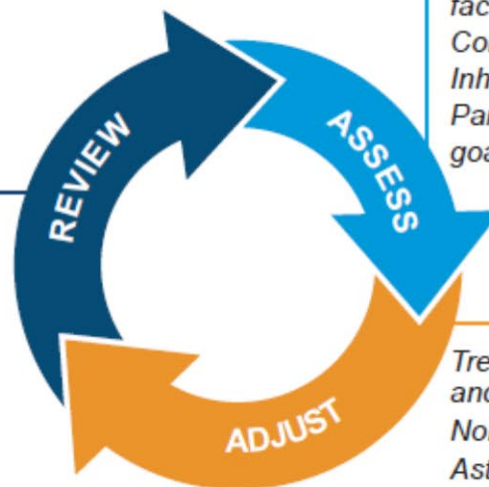
GINA 2023 – Children 5 years and younger



Personalized asthma management:

Assess, Adjust, Review response

Symptoms
Exacerbations
Side-effects
Risk factors
Comorbidities
Parent/caregiver satisfaction



Exclude alternative diagnoses
Symptom control & modifiable risk factors
Comorbidities
Inhaler technique & adherence
Parent/caregiver preferences and goals

Treat modifiable risk factors and comorbidities
Non-pharmacological strategies
Asthma medications
Education & skills training

Asthma medication options:

Adjust treatment up and down for individual child's needs

PREFERRED CONTROLLER CHOICE

Other controller options (limited indications, or less evidence for efficacy or safety)

RELIEVER

CONSIDER THIS STEP FOR CHILDREN WITH:

	STEP 1 (Insufficient evidence for daily controller)	STEP 2 Daily low dose inhaled corticosteroid (ICS) (see table of ICS dose ranges for pre-school children)	STEP 3 Double 'low dose' ICS (See Box 6-7)	STEP 4 Continue controller & refer for specialist assessment
	Consider intermittent short course ICS at onset of viral illness	Daily leukotriene receptor antagonist (LTRA), or intermittent short course of ICS at onset of respiratory illness	Low dose ICS + LTRA Consider specialist referral	Add LTRA, or increase ICS frequency, or add intermittent ICS
	As-needed short-acting beta ₂ -agonist			
Infrequent viral wheezing and no or few interval symptoms	Symptom pattern not consistent with asthma but wheezing episodes requiring SABA occur frequently, e.g. ≥3 per year. Give diagnostic trial for 3 months. Consider specialist referral. Symptom pattern consistent with asthma, and asthma symptoms not well-controlled or ≥3 exacerbations per year.		Asthma diagnosis, and asthma not well-controlled on low dose ICS Before stepping up, check for alternative diagnosis, check inhaler skills, review adherence and exposures	Asthma not well-controlled on double ICS

Asthma Control Symptom and Risk Assessment

Box 6-5. GINA assessment of asthma control in children 5 years and younger

A. Symptom control

In the past 4 weeks, has the child had:

Daytime asthma symptoms for more than a few minutes,
more than once a week? Yes ☐ No ☐

Any activity limitation due to asthma? (Runs/plays less
than other children, tires easily during walks/playing?) Yes ☐ No ☐

SABA reliever medication needed* more than once a week? Yes ☐ No ☐

Any night waking or night coughing due to asthma? Yes ☐ No ☐

Level of asthma symptom control

Well
controlled

Partly
controlled

Uncontrolled

None
of these

1–2
of these

3–4
of these