

Mimic Clinic: An innovative strategy to synthesize didactic skills

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Ciannie

- Ciannie is a 3 year old new to your practice. Last month the ED put her on albuterol for her 3rd asthma exacerbation this fall. The family has continued to use the albuterol daily at bedtime because her coughing has been so bad. She still continues to wake at night several times each week. Parents describe her as active but they notice that at times she can't catch her breath when she runs hard.

Ciannie

- Classify her asthma severity:

- What step would you initiate therapy?:

- What would you treat with?:

FIGURE 4–2a. CLASSIFYING ASTHMA SEVERITY AND INITIATING TREATMENT IN CHILDREN 0–4 YEARS OF AGE

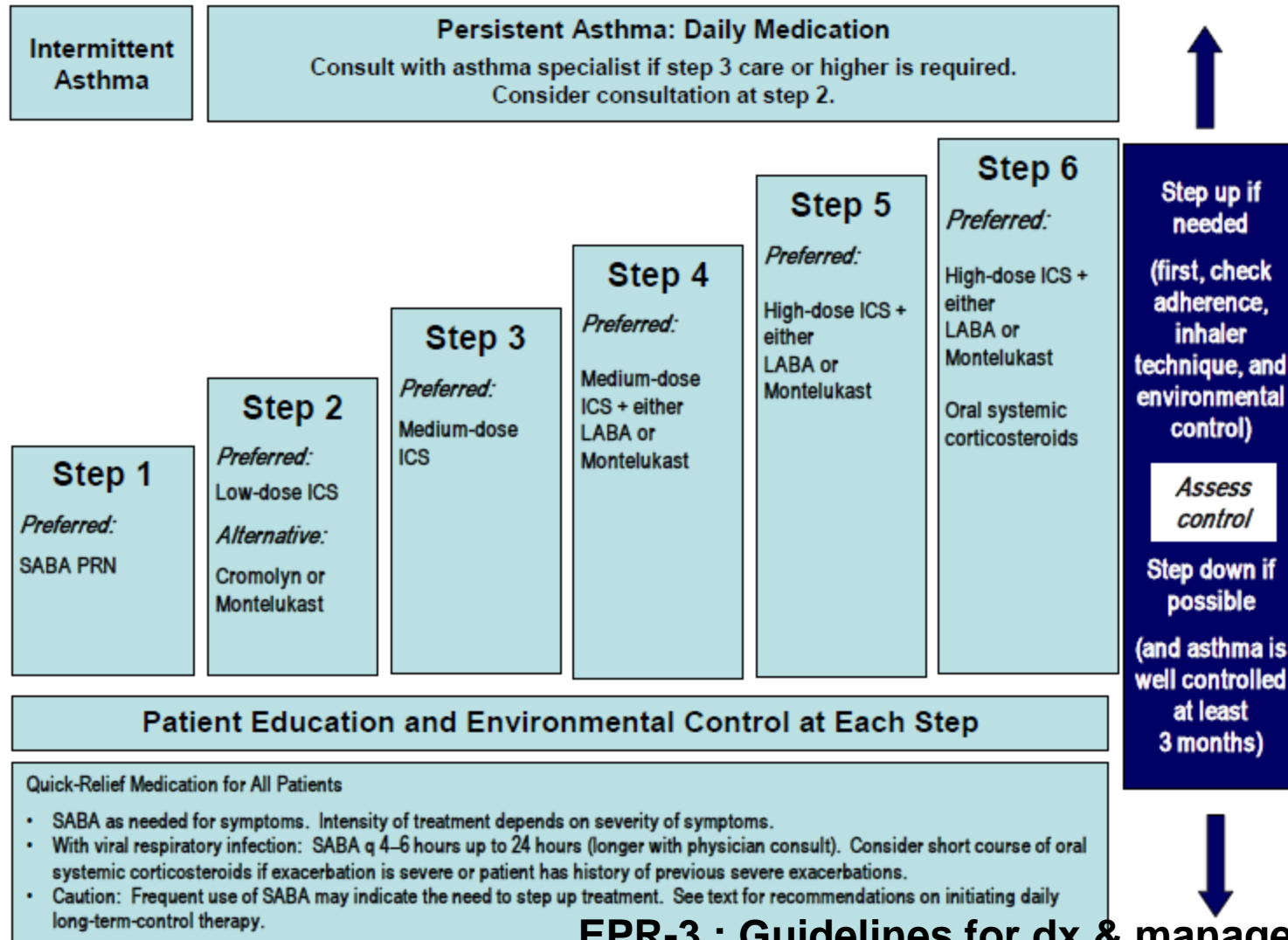
Assessing severity and initiating therapy in children who are not currently taking long-term control medication

Components of Severity		Classification of Asthma Severity (0–4 years of age)			
		Intermittent	Persistent		
			Mild	Moderate	Severe
Impairment	Symptoms	≤2 days/week	>2 days/week but not daily	Daily	Throughout the day
	Nighttime awakenings	0	1–2x/month	3–4x/month	>1x/week
	Short-acting beta ₂ -agonist use for symptom control (not prevention of EIB)	≤2 days/week	>2 days/week but not daily	Daily	Several times per day
	Interference with normal activity	None	Minor limitation	Some limitation	Extremely limited
Risk	Exacerbations requiring oral systemic corticosteroids	0–1/year	≥2 exacerbations in 6 months requiring oral systemic corticosteroids, or ≥4 wheezing episodes/1 year lasting >1 day AND risk factors for persistent asthma		
		<p style="text-align: center;">← Consider severity and interval since last exacerbation. Frequency and severity may fluctuate over time. →</p> <p style="text-align: center;">Exacerbations of any severity may occur in patients in any severity category.</p>			
Recommended Step for Initiating Therapy		Step 1	Step 2	Step 3 and consider short course of oral systemic corticosteroids	
(See figure 4–1a for treatment steps.)		In 2–6 weeks, depending on severity, evaluate level of asthma control that is achieved. If no clear benefit is observed in 4–6 weeks, consider adjusting therapy or alternative diagnoses.			

Key: EIB, exercise-induced bronchospasm

EPR-3 : Guidelines for dx & management of asthma. NIH. 2007. Bethesda, MD.

FIGURE 4-1a. STEPWISE APPROACH FOR MANAGING ASTHMA IN CHILDREN 0-4 YEARS OF AGE



EPR-3 : Guidelines for dx & management of asthma, NIH, 2007, Bethesda, MD.

Ciannie

- Write the prescription for the ICS (inhaled corticosteroid). Indicate if low, medium or high dose
- Write the prescription for her albuterol. Make sure to include any equipment that she might need

FIGURE 4–4b. ESTIMATED COMPARATIVE DAILY DOSAGES FOR INHALED CORTICOSTEROIDS IN CHILDREN

Drug	Low Daily Dose		Medium Daily Dose		High Daily Dose	
	Child 0–4	Child 5–11	Child 0–4	Child 5–11	Child 0–4	Child 5–11
Beclomethasone HFA 40 or 80 mcg/puff	NA	80–160 mcg	NA	>160–320 mcg	NA	>320 mcg
Budesonide DPI 90, 180, or 200 mcg/inhalation	NA	180–400 mcg	NA	>400–800 mcg	NA	>800 mcg
Budesonide inhaled Inhalation suspension for nebulization (child dose)	0.25–0.5 mg	0.5 mg	>0.5–1.0 mg	1.0 mg	>1.0 mg	2.0 mg
Flunisolide 250 mcg/puff	NA	500–750 mcg	NA	1,000–1,250 mcg	NA	>1,250 mcg
Flunisolide HFA 80 mcg/puff	NA	160 mcg	NA	320 mcg	NA	≥640 mcg
Fluticasone HFA/MDI: 44, 110, or 220 mcg/puff	176 mcg	88–176 mcg	>176–352 mcg	>176–352 mcg	>352 mcg	>352 mcg
DPI: 50, 100, or 250 mcg/inhalation	NA	100–200 mcg	NA	>200–400 mcg	NA	>400 mcg
Mometasone DPI 200 mcg/inhalation	NA	NA	NA	NA	NA	NA
Triamcinolone acetonide 75 mcg/puff	NA	300–600 mcg	NA	>600–900 mcg	NA	>900 mcg

Key: HFA, hydrofluoroalkane; NA, not approved and no data available for this age group

Notes:

Ciannie

- Ciannie comes back for follow up in 2 weeks. This time instead of assessing for severity you will assess for control.
- Symptoms: 2x/ week
- Night wakening: 0
- Interference with normal activity: none
- SABA (short acting β agonist) use :
only 2X since last visit

FIGURE 4–3a. ASSESSING ASTHMA CONTROL AND ADJUSTING THERAPY IN CHILDREN 0–4 YEARS OF AGE

Components of Control		Classification of Asthma Control (0–4 years of age)		
		Well Controlled	Not Well Controlled	Very Poorly Controlled
Impairment	Symptoms	≤2 days/week	>2 days/week	Throughout the day
	Nighttime awakenings	≤1x/month	>1x/month	>1x/week
	Interference with normal activity	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
Risk	Exacerbations requiring oral systemic corticosteroids	0–1/year	2–3/year	>3/year
	Treatment-related adverse effects	Medication side effects can vary in intensity from none to very troublesome and worrisome. The level of intensity does not correlate to specific levels of control but should be considered in the overall assessment of risk.		
Recommended Action for Treatment (See figure 4–1a for treatment steps.)		<ul style="list-style-type: none"> • Maintain current treatment. • Regular followup every 1–6 months. • Consider step down if well controlled for at least 3 months. 	<ul style="list-style-type: none"> • Step up (1 step) and reevaluate in 2–6 weeks. • If no clear benefit in 4–6 weeks, consider alternative diagnoses or adjusting therapy. • For side effects, consider alternative treatment options. 	<ul style="list-style-type: none"> • Consider short course of oral systemic corticosteroids, • Step up (1–2 steps), and • Reevaluate in 2 weeks. • If no clear benefit in 4–6 weeks, consider alternative diagnoses or adjusting therapy. • For side effects, consider alternative treatment options.

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- What is Ciannie's control level?

- What will you need to do now?

- What will your teaching be for this family?

- 4 year old Jamal has a sore throat but his rapid strep test is negative. He needs some pain control. His insurance will pay if you write a script. Give him ibuprofen . He weighs 35 lbs. NKDA

Ana is 8 years old. She is 50 inches tall and weighs 58 lbs. She has been nagging her mother about not using the booster seat when riding in the car. She says she is too old for a booster seat. Your advice to Ana and her mother is that using a booster seat is based on:

- a. Age and Weight
- b. Age and Height
- c. Weight and Height
- d. Parents will power