

Management of Asthma in Adults (Preferred treatment is shown in bold text)

Step	Symptoms	Nocturnal Symptoms	Lung Function	Long-Term Control	Quick Relief	Education
Step 4: Severe Persistent	<ul style="list-style-type: none"> ●Continual Symptoms ●Limited Physical Activity ●Frequent exacerbations 	Frequent	<ul style="list-style-type: none"> ●FEV-1 or PEF \leq 60% predicted ●PEF variability > 30% 	Daily medications: <ul style="list-style-type: none"> ●Anti-inflammatory; inhaled corticosteroid (high dose) <i>and</i> ●Long-acting bronchodilator; either long-acting inhaled beta₂ agonist, sustained-release theophylline, or long-acting beta₂ agonist tablets <i>and</i> ●Corticosteroid tablets or syrup long-term (make repeat attempts to reduce systemic steroids and maintain control with high-dose inhaled steroids) 	<ul style="list-style-type: none"> ●Short-acting bronchodilator; inhaled beta₂-agonists as needed for symptoms. ●Intensity of treatment will depend on severity of exacerbation. ●Use of short-acting inhaled beta₂-agonists on a daily basis, or increasing use, indicates the need for additional long-term- control therapy. 	Steps 2 and 3 actions plus: <ul style="list-style-type: none"> ●Refer to individual education/counseling
Step 3: Moderate Persistent	<ul style="list-style-type: none"> ●Daily Symptoms ●Daily use of inhaled short-acting beta₂-agonists ●Exacerbations affect activity ●Exacerbations \geq 2 times a week; may last days 	> 1 time a week	<ul style="list-style-type: none"> ●FEV-1 or PEF > 60% - < 80% predicted ●PEF variability > 30% 	Daily medication: <ul style="list-style-type: none"> ●<i>Either</i> Anti-inflammatory: inhaled corticosteroid (medium dose) ●<i>or</i> Inhaled corticosteroid (low-medium dose) and add a long-acting bronchodilator, especially for nighttime symptoms: either long-acting inhaled beta₂-agonist, sustained-release theophylline, or long-acting beta₂-agonist tablets. If needed: <ul style="list-style-type: none"> Anti-inflammatory: inhaled corticosteroids (medium-high dose) <i>and</i> Long-acting bronchodilator, especially for nighttime symptoms: either long-acting inhaled beta₂-agonist, sustained-release theophylline, or long-acting beta₂-agonist tablets 	<ul style="list-style-type: none"> ●Short-acting broncho-dilator; Inhaled beta₂-agonists as needed for symptoms. ●Intensity of treatment will depend on severity of exacerbation. ●Use of short-acting inhaled beta₂-agonists on a daily basis, or increasing use, indicates the need for additional long-term- control therapy. 	Step 1 actions plus: <ul style="list-style-type: none"> ●Teach self-monitoring ●Refer to group education if available ●Review and update self-management plan
Step 2: Mild Persistent	<ul style="list-style-type: none"> ●Symptoms > 2 times a week but < 1 time a day ●Exacerbations may affect activity 	> 2 times a month	<ul style="list-style-type: none"> ●FEV-1 or PEF \geq 80% predicted ●PEF variability 20-30% 	One daily medication: <ul style="list-style-type: none"> ●Anti-inflammatory: either inhaled corticosteroid (low doses) or cromolyn or nedocromil (children usually begin with a trial of cromolyn or nedocromil). Sustained-release theophylline to serum concentrations of 5-15 mcg/mL is an alternative, but not preferred, therapy. Zafirlukast or zileuton may also be considered for patients > 12 years of age, although their position in therapy is not fully established.	<ul style="list-style-type: none"> ●Short-acting broncho-dilator: inhaled beta₂-agonists as needed for symptoms. ●Intensity of treatment will depend on severity of exacerbation. ●Use of short-acting inhaled beta₂-agonists on a daily basis, or increasing use, indicates the need for additional long-term-control therapy. 	Step 1 actions plus: <ul style="list-style-type: none"> ●Teach self-monitoring ●Refer to group education if available ●Review and update self-management plan
Step 1: Mild Intermittent	<ul style="list-style-type: none"> ●Symptoms \leq 2 times a week ●Asymptomatic and normal PEF between exacerbations ●Exacerbations brief (from a few hours to a few days); intensity may vary 	\leq 2 times a month	<ul style="list-style-type: none"> ●FEV-1 or PEF \geq 80% predicted ●PEF variability < 20% 	No daily medication needed.	<ul style="list-style-type: none"> ●Short-acting broncho-dilator: inhaled beta₂-agonists as needed for symptoms. ●Intensity of treatment will depend on severity of exacerbation. ●Use of short-acting inhaled beta₂-agonists more than 2 times a week may indicate the need to initiate long-term-control therapy. 	<ul style="list-style-type: none"> ●Teach basic facts about asthma ●Teach inhaler /spacer/holding chamber technique ●Discuss roles of medications ●Develop self-management plan ●Develop action plan for when and how to take rescue actions, especially for patients with a history of severe exacerbations ●Discuss appropriate environmental control measures to avoid exposure to known allergens and irritants.