

# ACO 2021

## Box 5-2. Approach to initial treatment in patients with asthma and/or COPD

CLINICAL PHENOTYPE - ADULTS WITH CHRONIC RESPIRATORY SYMPTOMS (dyspnea, cough, chest tightness, wheeze)		
<b>HIGHLY LIKELY TO BE ASTHMA</b> If several of the following features <b>TREAT AS ASTHMA</b>	<b>FEATURES OF BOTH ASTHMA + COPD</b> <b>TREAT AS ASTHMA</b>	<b>LIKELY TO BE COPD</b> If several of the following features <b>TREAT AS COPD</b>
<b>HISTORY</b> <ul style="list-style-type: none"> <li>Symptoms vary over time and in intensity</li> <li>Triggers may include laughter, exercise, allergens, seasonal</li> <li>Onset before age 40 years</li> <li>Symptoms improve spontaneously or with bronchodilators (minutes) or ICS (days to weeks)</li> <li>Current asthma diagnosis, or asthma diagnosis in childhood</li> </ul> <b>LUNG FUNCTION</b> <ul style="list-style-type: none"> <li>Variable expiratory airflow limitation</li> <li>Persistent airflow limitation may be present</li> </ul>	<b>HISTORY</b> <ul style="list-style-type: none"> <li>Symptoms intermittent or episodic</li> <li>May have started before or after age 40</li> <li>May have a history of smoking and/or other toxic exposures, or history of low birth weight or respiratory illness such as tuberculosis</li> <li>Any of asthma features at left (e.g. common triggers; symptoms improve spontaneously or with bronchodilators or ICS; current asthma diagnosis or asthma diagnosis in childhood)</li> </ul> <b>LUNG FUNCTION</b> <ul style="list-style-type: none"> <li>Persistent expiratory airflow limitation</li> <li>With or without bronchodilator reversibility</li> </ul>	<b>HISTORY</b> <ul style="list-style-type: none"> <li>Dyspnea persistent (most days)</li> <li>Onset after age 40 years</li> <li>Limitation of physical activity</li> <li>May have been preceded by cough/sputum</li> <li>Bronchodilator provides only limited relief</li> <li>History of smoking and/or other toxic exposure, or history of low birth weight or respiratory illness such as tuberculosis</li> <li>No past or current diagnosis of asthma</li> </ul> <b>LUNG FUNCTION</b> <ul style="list-style-type: none"> <li>Persistent expiratory airflow limitation</li> <li>With or without bronchodilator reversibility</li> </ul>
INITIAL PHARMACOLOGICAL TREATMENT (as well as treating comorbidities and risk factors. See Box 3-5A)		
<ul style="list-style-type: none"> <li><b>ICS-CONTAINING TREATMENT IS ESSENTIAL</b> to reduce risk of severe exacerbations and death. See Box 3-5A</li> <li>As-needed low dose ICS-formoterol may be used as reliever. See Box 3-5A</li> <li><b>DO NOT GIVE LABA and/or LAMA without ICS</b></li> <li>Avoid maintenance OCS</li> </ul>	<ul style="list-style-type: none"> <li><b>ICS-CONTAINING TREATMENT IS ESSENTIAL</b> to reduce risk of severe exacerbations and death. See Box 3-5A</li> <li>Add-on LABA and/or LAMA usually also needed</li> <li>Additional COPD treatments as per GOLD</li> <li><b>DO NOT GIVE LABA and/or LAMA without ICS</b></li> <li>Avoid maintenance OCS</li> </ul>	<ul style="list-style-type: none"> <li><b>TREAT AS COPD (see GOLD report)</b> <ul style="list-style-type: none"> <li>Initially LAMA and/or LABA</li> <li>Add ICS as per GOLD for patients with hospitalizations, <math>\geq 2</math> exacerbations/year requiring OCS, or blood eosinophils <math>\geq 300/\mu\text{l}</math></li> </ul> </li> <li>Avoid high dose ICS, avoid maintenance OCS</li> <li>Reliever containing ICS is not recommended</li> </ul>
REVIEW PATIENT AFTER 2-3 MONTHS. REFER FOR EXPERT ADVICE IF DIAGNOSTIC UNCERTAINTY OR INADEQUATE RESPONSE		

GOLD: Global Initiative for Obstructive Lung Disease; ICS: inhaled corticosteroid; LABA: long-acting  $\beta_2$ -agonist; LAMA: long-acting muscarinic antagonist

⇒ GINA 2021

## Box 3. Spirometric measures in asthma, COPD and asthma-COPD overlap

Spirometric variable	Asthma	COPD	Asthma-COPD overlap
Normal FEV <sub>1</sub> /FVC pre- or post BD	Compatible with diagnosis	Not compatible with diagnosis	Not compatible unless other evidence of chronic airflow limitation
Post-BD FEV <sub>1</sub> /FVC <0.7	Indicates airflow limitation but may improve spontaneously or on treatment	Required for diagnosis (GOLD criteria)	Usually present
Post-BD FEV <sub>1</sub> $\geq 80\%$ predicted	Compatible with diagnosis (good asthma control or interval between symptoms)	Compatible with GOLD classification of mild airflow limitation if post-BD FEV <sub>1</sub> /FVC <0.7	Compatible with mild asthma-COPD overlap
Post-BD FEV <sub>1</sub> <80% predicted	Compatible with diagnosis. Risk factor for asthma exacerbations	An indicator of severity of airflow limitation and risk of future events (e.g. mortality and COPD exacerbations)	An indicator of severity of airflow limitation and risk of future events (e.g. mortality and exacerbations)
Post-BD increase in FEV <sub>1</sub> $\geq 12\%$ and 200ml from baseline (reversible airflow limitation).	Usual at some time in course of asthma, but may not be present when well-controlled or on controllers	Common and more likely when FEV <sub>1</sub> is low	Common and more likely when FEV <sub>1</sub> is low
Post-BD increase in FEV <sub>1</sub> >12% and 400ml from baseline (marked reversibility)	High probability of asthma	Unusual in COPD. Consider asthma-COPD overlap	Compatible with asthma-COPD overlap

BD: bronchodilator; FEV<sub>1</sub>: forced expiratory volume in 1 second; FVC: forced vital capacity; GOLD: Global Initiative for Obstructive Lung Disease.

⇒ GINA AND GOLD 2017