

A Breath of Fresh Air! Targeted Screening and Management of COPD in Primary Care

Pearls for practice

Dr. Mohit Bhutani

Key Messages

- COPD is a debilitating, progressive and fatal respiratory disease. It is common and can be prevented. With proper management, there will be improved quality of life, a reduction in exacerbations and mortality.
- Tobacco exposure remains the number one cause for the development of COPD, other causes can be related to occupational exposure, indoor and outdoor pollution, family history of COPD (alpha 1-antitrypsin deficiency)
- As lung function declines, symptoms in COPD worsen. Dyspnea leads to deconditioning and further inactivity.
- The higher the dyspnea, the greater the risk for COPD exacerbations. Individuals are considered to be:
 - **Low risk** if they had 1 or less moderate exacerbation in the last year, and did not require an ED visit or hospitalization
 - **High risk** if they had 2 or more moderate or 1 or more severe exacerbation (requiring hospitalization or ED visit) in the last year
- Think COPD – consider risk factors, their symptoms and screen using spirometry for diagnosis
- The Canadian Lung Health test increases pretest probability. If YES to any of the questions, patient should be sent for screening spirometry.
- Spirometry is the gold standard for diagnosis of COPD. A full Pulmonary Function Test is NOT always required.
- Classification by Impairment of lung function: GOLD Grades

Canadian Lung Health Test ¹		
If you are over 40 and smoke or used to smoke, you may already have COPD. Take this quick test to screen for symptoms of COPD:		
	Yes	No
1. Do you cough regularly?	<input type="checkbox"/>	<input type="checkbox"/>
2. Do you cough up phlegm regularly?	<input type="checkbox"/>	<input type="checkbox"/>
3. Do even simple chores make you short of breath?	<input type="checkbox"/>	<input type="checkbox"/>
4. Do you wheeze when you exert yourself (exercise, go upstairs)?	<input type="checkbox"/>	<input type="checkbox"/>
5. Do you get many colds, and do your colds usually last longer than your friends' colds?	<input type="checkbox"/>	<input type="checkbox"/>

GOLD Grades and Severity of Airflow Obstruction in COPD (based on post-bronchodilator FEV1)		
Table 2.6		
In COPD patients (FEV1/FVC < 0.7):		
GOLD 1:	Mild	FEV1 ≥ 80% predicted
GOLD 2:	Moderate	50% ≤ FEV1 < 80% predicted
GOLD 3:	Severe	30% ≤ FEV1 < 50% predicted
GOLD 4:	Very Severe	FEV1 < 30% predicted

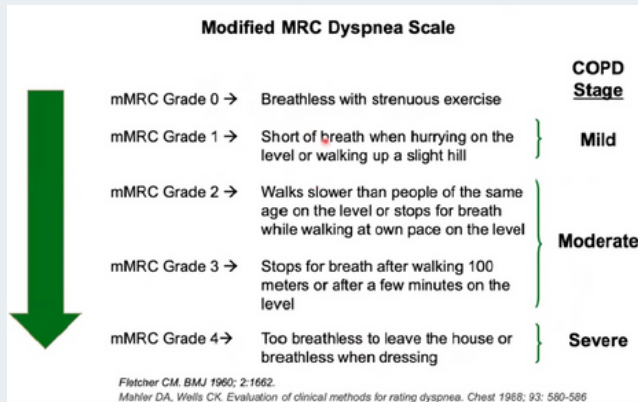
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There are 3 parameters to consider once a COPD diagnosis has been confirmed to ensure the right medication is given to the right patient at the right time:

- Assessment of their Dyspnea, using the mMRC score,
- Assessment of their Quality of Life (QoL) using the CAT score (reliable measure of the impact of COPD on a patient's health status, Score <10 low impact of COPD on health status)
- A patients future risk for COPD exacerbations.



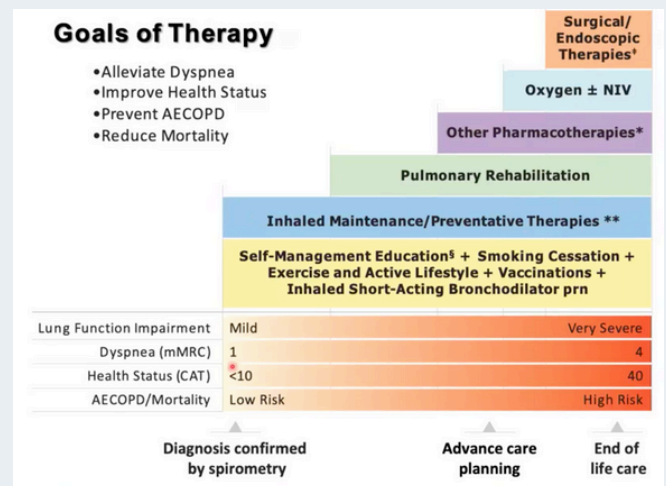
- **Goals of therapy:** alleviate dyspnea, improve health status, prevent exacerbations of COPD, reduce mortality.
- Delays in optimal treatment is associated with a 43% increase risk of future COPD related hospitalization and ED visits as well as mortality.
- An optimized triple therapy regimen in high risk populations reduces mortality and the risk of exacerbations (32%)

CAT™ Assessment Figure 2.2

For each item below, place a mark (x) in the box that best describes you currently. Be sure to only select one response for each question.

EXAMPLE: I am very happy	0	1	2	3	4	5	I am very sad	Score
I never cough	0	1	2	3	4	5	I cough all the time	
I have no phlegm (mucus) in my chest at all	0	1	2	3	4	5	My chest is completely full of phlegm (mucus)	
My chest does not feel tight at all	0	1	2	3	4	5	My chest feels very tight	
When I walk up a hill or one flight of stairs I am not breathless	0	1	2	3	4	5	When I walk up a hill or one flight of stairs I am very breathless	
I am not limited doing any activities at home	0	1	2	3	4	5	I am very limited doing activities at home	
I am confident leaving my home despite my lung condition	0	1	2	3	4	5	I am not at all confident leaving my home because of my lung condition	
I sleep soundly	0	1	2	3	4	5	I don't sleep soundly because of my lung condition	
I have lots of energy	0	1	2	3	4	5	I have no energy at all	

Reference: Jones et al. ERJ 2009; 34 (3): 648-54. TOTAL SCORE:



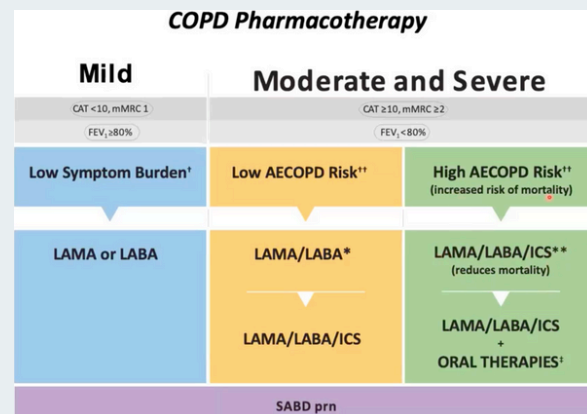
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• **COPD Management for the vast majority of patients in clinical practice reduce to:**

- dual bronchodilators (LAMA & LABA)
- 2 single inhalers triple therapy (ICS/LAMA/LABA)
- Short acting Beta 2 agonist (SABA) for relief
- Single Inhaler Triple Therapy (SITT) is preferred over Multi-Inhaler Triple Therapy (MITT). The decision to switch should be part of a shared decision making with the patient.



• **Non- pharmacotherapy therapy is important as part of the management and prevention plan:**

- Self-management education; utilize Certified Respiratory Educators (42% reduction of exacerbations)
- Smoking cessation
- Vaccinations
- Pulmonary rehabilitation (55% reduction of exacerbations after hospitalization)

The chart is organized into three main columns: Short-Acting Bronchodilators, Long-Acting Bronchodilators, and Combination Inhalers. Each column contains sub-sections for different drug classes (SAMA, SABA, LAMA, LABA, ICS/LABA, SAMA and SABA) and lists specific medications with their dosages and manufacturers. A 'Company Key' is provided at the bottom left of the chart.

Resources:

- [2023 CTS COPD Pharmacotherapy Guidelines](#)
- [Canadian Lung Association](#)
- [Pulmonary Rehabilitation referral program](#)

- Jones et.al. ERJ 2009; 34 (3): 648-54
- Tkacz J et.al. int Chron Obstruct Pulmon Dis. 2022;17:329-342



Consider using **MyL3Plan**, a free online tool developed by the Office of Lifelong Learning (L3) that can be used to meet and support the 3 activities/action plans required by the PPIP-CPSA and earn up to 36 Mainpro+ certified credits. by completing the following cycles:

- Practice-driven quality improvement using objective data (CQI)
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