



Key Update

Chronic Obstructive Pulmonary Disease and Inhaled Corticosteroids

The Global Initiative for Chronic Obstructive Lung Disease (GOLD) 2019 introduced blood eosinophil counts as a biomarker for estimating efficacy of inhaled corticosteroids (ICS) in prevention of exacerbations. The 2020 GOLD initiative added information regarding the role of eosinophil count as a biomarker along with clarification of the diagnosis of exacerbations. Exacerbations represent the main clinically relevant endpoint when assessing the anti-inflammatory efficacy of a drug. A key point is that long-term use of **ICS monotherapy is not recommended in COPD**, as most studies are finding regular treatment with an ICS alone does not affect the long-term decline of FEV1 nor showing improvements in patient mortality rates.

ICS in Combination with Long Acting Bronchodilator Therapy

- For patients having moderate to severe COPD with exacerbations, the combined use of an ICS and a Long Acting Beta Agonist (LABA) has been found to be more effective than either of these components alone.
- At higher blood eosinophil concentrations, in populations with high exacerbation risk (>2 exacerbations or 1 hospitalization per year), use of ICS/LABA decreases exacerbations to a greater extent than use of a LAMA monotherapy or a LABA/LAMA combination.
- Improvements are noted in lung function, health status and reduction of exacerbation

When to Add ICS for Combination Treatment of COPD Management

- History of hospitalization for exacerbations of COPD
- Two or more moderate exacerbations of COPD per year
- Blood eosinophils ≥ 300 cells/microliter
- History of asthma, or concomitant asthma

Stepwise Progression Guide to Pharmacological Treatment:

- Zero or one moderate exacerbation (not leading to hospital admission):
 - **Group A: Minimally symptomatic - low risk of exacerbation**
 - Bronchodilator (either SABA or LABA)
 - **Group B: More symptomatic, low risk of exacerbation**
 - LABA or LAMA
- Two or more moderate exacerbations OR one or more leading to hospitalization:
 - **Group C: Minimally symptomatic, high risk of exacerbation**
 - LAMA
 - **Group D: More symptomatic, high risk of exacerbation**
 - LAMA
 - LAMA + LABA
 - ❖ Patient is highly symptomatic with COPD ASSESSMENT TEST (CAT) >20
 - ICS + LABA
 - ❖ Patient's blood eosinophils ≥ 300 cells/microliter

Global Strategy for the Diagnosis, Management and Prevention of COPD. Global Initiative for Chronic Obstructive Lung Disease (GOLD) Updated December 2019. <https://goldcopd.org/wp-content/uploads/2019/11/GOLD-2020-REPORT-ver1.0wms.pdf>.