GOLD 2022 KEY CHANGES SUMMARY

References, Tables & Figures

In total **160 new references** have been added to the GOLD 2022 report as listed alphabetically at the end of this document.

The following tables have had minor amendments made to them:

**Figure 3.1** – Clarification of blood eosinophils range (eos cells/µL)

**Table 3.2** – Vaccination for stable COPD: COVID-19, Tdap (dTaP/dTPa/pertussis/whooping cough) and Zoster (shingles) vaccinations have been added to the vaccine recommendations.

**Table 4.8** – Non-pharmacologic management of COPD: COVID-19 vaccination has been added to this table.

**Table 4.10** – Key points for the use of non-pharmacological treatments: COVID-19 and Tdap (dTaP/dTPa/pertussis/whooping cough) vaccination have been added to this table.

**Table 5.8** – Discharge criteria and recommendations for follow-up: At 1-4 weeks follow-up document the capacity to do physical activity and consider patient eligibility to be enrolled in pulmonary rehabilitation.

**Table 5.9** – Interventions that reduce the frequency of COPD exacerbations: shielding measures (e.g., mask wearing, minimizing social contact, frequent hand washing) was added

**Table 7.2** – Key points for the management of patients with COPD and suspected or proven COVID-19: Have the COVID-19 vaccination in line with national recommendations.

CHAPTER 1

Prevalence

New data and references have been added from recently published Burden of Obstructive Lung Diseases (BOLD) program and Global Burden of Disease Study reports.

Economic burden

New data about expected costs attributable to COPD has been added.

Age and sex

New data about sex-based differences in prevalence has been added.
Lung growth and development

New definitions for four distinct entities: Early COPD, Mild COPD, COPD in young people and Pre-COPD have been provided.

Exposure to particles

New references and a sentence have been added to highlight the increased risk of COPD associated with exposure to high doses of pesticides and ambient levels of particulate matter.

CHAPTER 2

Dyspnea

New sentences and references have been added about the symptom of dyspnea.

Fatigue

Fatigue has been added as a symptom and defined with new references added.

Diffusing capacity of the lungs for carbon monoxide (DLco)

A new paragraph and new references on DLco has been added.

CHAPTER 3

Pharmacological therapy for stable COPD

New sentences and a reference have been added outlining new systematic review evidence that pharmacotherapy can reduce the rate of FEV₁ decline.

Methylxanthines

A sentence has been added about the TASCs RCT and the effect of low-dose corticosteroids and theophylline on the risk of acute exacerbations of COPD (Jenkins et al. 2021).

Inhaled corticosteroids (ICS)

Further data and references on blood eosinophil counts and the effect of ICS in preventing exacerbations has been added.

Triple therapy (LABA/LAMA/ICS)

A sentence has been added to include data from the ETHOS trial where the use of triple therapy
containing the higher dose ICS (but not the lower dose) was associated with reduced mortality compared to LABA/LAMA (Martinez et al. 2021).

**Alpha-1 antitrypsin (AATD) augmentation therapy**

Two paragraphs and new references have been added to this section explaining that ever or ex-smokers with an FEV1 of 35-60% predicted have been suggested as those most suitable for AATD augmentation therapy (Evidence B). Evidence for COPD risk relating to the different AATD genotypes is also outlined.

**Pulmonary rehabilitation**

References and a new paragraph have been added to outline the RCT evidence available for the effectiveness of pulmonary rehabilitation. A statement outlining options for pulmonary rehabilitation in rural, remote, home-based or situations of economic limitation has also been included.

**Tele-rehabilitation**

A new section including 5 paragraphs on tele-rehabilitation for COPD has been added.

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**CHAPTER 4**

**Exercise training**

New sentences have been added to incorporate evidence about Tai Chi practice.

**Nutritional support**

The nutritional support section has been updated to include an evidence-based review of the literature on this topic relating to COPD.

**Vaccination**

COVID-19, Tdap (dTaP/dTPa/pertussis/whooping cough) and Zoster (shingles) vaccinations have been added to the vaccine recommendations.

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**CHAPTER 5**

**Introduction**

Information and references about filamentous fungi and *Aspergillus* species in relation to COPD exacerbations has been added.
Pharmacological treatment – Adjunct therapies

Further information about the risk of venous thromboembolism in hospitalized patients with COPD has been added.

Prevention of exacerbations

Information and references about the benefit of shielding measures (e.g., mask wearing, minimizing social contact, frequent hand washing) during winter months to help in the prevention of exacerbations.

CHAPTER 6

Overall key points

The following text was added:

- **Lung cancer is frequently seen in patients with COPD and is a major cause of death.**
  - Annual low-dose CT scan (LDCT) is recommended for lung cancer screening in patients with COPD due to smoking according to recommendations for the general population
  - Annual LDCT is not recommended for lung cancer screening in patients with COPD not due to smoking due to insufficient data to establish benefit over harm

Lung cancer

A paragraph and references on lung cancer screening in COPD has been added.

Inhaled corticosteroids (ICS) and lung cancer incidence

A new section reviewing ICS and lung cancer incidence has been added.

Bronchiectasis

New sentences and references about COPD patients with and without bronchiectasis.

CHAPTER 7

Risk of infection with SARS-CoV-2

New references have been added to update this section.
Vaccination

COVID-19 vaccines are highly effective against SARS-CoV-2 infection requiring hospitalization, ICU admission, or an emergency department or urgent care clinic visit, including those with chronic respiratory disease (Thompson et al., 2021). Patients with COPD should have COVID-19 vaccination in line with national recommendations.

NEW REFERENCES ADDED

References added to Chapters 1-7 (listed alphabetically)


96. Lindemayer PK, Stefan MS, Pekow PS, Mazor KM, Priya A, Spitzer KA, Lagu TC, Pack QR, Pinto-Plata VM, Zuwallack R. Association Between Initiation of Pulmonary Rehabilitation After Hospitalization for COPD and 1-Year Survival Among Medicare Beneficiaries. JAMA 2020; 323: 1813-1823.


