

CHAPTER 3: PREVENTION & MANAGEMENT OF COPD

KEY POINTS:

- All individuals who smoke should be strongly encouraged and supported to quit. Nicotine replacement and pharmacotherapy reliably increase long-term smoking abstinence rates. Legislative smoking bans and counseling, delivered by healthcare professionals, improve quit rates. There is no evidence to support the effectiveness and safety of e-cigarettes as a smoking cessation aid at present.
- The main treatment goals are to reduce symptoms and future risk of exacerbations. The management strategy of stable COPD should be predominantly based on the assessment of symptoms and the history of exacerbations.
- Pharmacotherapy can reduce COPD symptoms, reduce the frequency and severity of exacerbations, and improve health status and exercise tolerance. Data suggest beneficial effects on rates of lung function decline and mortality.
- Each pharmacological treatment regimen should be individualized and guided by the severity of symptoms, risk of exacerbations, side-effects, comorbidities, drug availability and cost, and the patient's response, preference, and ability to use various drug delivery devices.
- Inhaler technique needs to be assessed regularly.
- COVID-19 vaccines are highly effective against SARS-CoV-2 infection and people with COPD should have the COVID-19 vaccination in line with national recommendations.
- Influenza vaccination and pneumococcal vaccination decrease the incidence of lower respiratory tract infections.
- The CDC recommends: the Tdap vaccination (dTAp/dTPa; pertussis, tetanus and diphtheria) for COPD patients who were not vaccinated in adolescence; routine use of shingles vaccine in all COPD patients; the new respiratory syncytial virus (RSV) vaccine for individuals over 60 years and/or with chronic heart or lung disease.
- Pulmonary rehabilitation with its core components, including exercise training combined with disease-specific education, improves exercise capacity, symptoms, and quality of life across all grades of COPD severity.
- In patients with severe resting chronic hypoxemia ($\text{PaO}_2 \leq 55 \text{ mmHg}$ or $< 60 \text{ mmHg}$ if there is *cor pulmonale* or secondary polycythemia), long-term oxygen therapy improves survival.
- In patients with stable COPD and resting or exercise-induced moderate desaturation, long-term oxygen treatment should not be prescribed routinely. However, individual patient factors must be considered when evaluating the patient's need for supplemental oxygen.
- In patients with severe chronic hypercapnia and a history of hospitalization for acute respiratory failure, long-term non-invasive ventilation may decrease mortality and prevent re-hospitalization.
- In select patients with advanced emphysema refractory to optimized medical care, surgical or bronchoscopic interventional treatments may be beneficial.
- Palliative approaches are effective in controlling symptoms in advanced COPD.