CHRONIC OBSTRUCTIVE PULMONARY DISEASE

Diagnosis
All patients should stop smoking, avoid irritants and have an annual influenza vaccination
Early effective treatment of exacerbations

Stage I
FEV1 at least 50% of predicted
Mild effort-related dyspnoea

Bronchodilators: relieve symptoms, do not alter decline in FEV1
β2 agonist inhaler: 2 puffs 6 hourly as needed or
Ipratropium bromide inhaler: 2 puffs 6 hourly as needed or
Combination of above: 6 hourly as needed and
Oral theophylline 6-8mg/kg/day in divided doses adjusted to plasma trough levels

No improvement?
Consider oral corticosteroid trial:
prednisone 40mg/day for 14 days

Stage II
FEV1 35-49% of predicted
Continuous dyspnoea

Bronchodilators: relieve symptoms, do not alter decline in FEV1
β2 agonist inhaler: 2 puffs 6 hourly as needed or
Ipratropium bromide inhaler: 2 puffs 6 hourly as needed or
Combination of above: 6 hourly as needed and
Oral theophylline 6-8mg/kg/day in divided doses adjusted to plasma trough levels

Stage III
FEV1 < 35% of predicted
Respiratory failure
Cor Pulmonale

Improvement of FEV1 < 10% and significant symptomatic improvement
Consider the risk-benefit of low dose prednisone 10mg alternate days or 5mg daily and optimise bronchodilator therapy

Severe advanced disease
Consider long term domiciliary oxygen
Treat complications
Prevent weight loss

No objective response: Stop corticosteroids
Optimise bronchodilator therapy and other supportive therapy

Objectives improvement in FEV1 of >12% and >200ml to more than 80% predicted
Treat as for Asthma

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Glossary:
- FEV1 – Forced expiratory volume in 1 second
- $\beta_2$ – Beta-2 receptor

Applicable ICD 10 Coding:
- J43 Emphysema
  - J43.0 MacLeod's syndrome
  - J43.1 Panlobular emphysema
  - J43.2 Centrilobular emphysema
  - J43.8 Other emphysema
  - J43.9 Emphysema, unspecified

- J44 Other chronic obstructive pulmonary disease
  - J44.0 Chronic obstructive pulmonary disease with acute lower respiratory infection
  - J44.1 Chronic obstructive pulmonary disease with acute exacerbation, unspecified
  - J44.8 Other specified chronic obstructive pulmonary disease
  - J44.9 Chronic obstructive pulmonary disease, unspecified

Note:
1. Medical management reasonably necessary for the delivery of treatment described in this algorithm is included within this benefit, subject to the application of managed health care interventions by the relevant medical scheme.

2. To the extent that a medical scheme applies managed health care interventions in respect of this benefit, for example clinical protocols for diagnostic procedures or medical management, such interventions must –
   a. not be inconsistent with this algorithm;
   b. be developed on the basis of evidence-based medicine, taking into account considerations of cost-effectiveness and affordability; and
   c. comply with all other applicable regulations made in terms of the Medical Schemes Act, 131 of 1998

3. This algorithm may not necessarily always be clinically appropriate for the treatment of children. If this is the case, alternative paediatric clinical management is included within this benefit if it is supported by evidence-based medicine, taking into account considerations of cost-effectiveness and affordability.