NICE National Institute for Health and Care Excellence

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COPD: oxygen saturation recording

NICE indicator
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Indicator

The percentage of patients with very severe chronic obstructive pulmonary disease (COPD) with a record of oxygen saturation value within the preceding 12 months.

Indicator type

General practice indicator suitable for use in the Quality and Outcomes Framework.

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To find out how to use indicators and how we develop them, see our NICE indicator process guide.

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Rationale

Chronic obstructive pulmonary disorder (COPD) is characterized by airflow obstruction which is progressive and not fully reversible. The airflow obstruction results from chronic inflammation, most commonly caused by smoking. It produces symptoms, disability and impaired quality of life which may respond to pharmacological and other therapies, but these have limited impact on airway obstruction. The need for long term oxygen therapy should be assessed in patients with stage 4 disease, very severe airflow obstruction and the presence of other symptoms suggesting low oxygen saturation and when oxygen saturation is 92% or less.

This indicator supports identification of patients who would benefit from long term oxygen therapy. Oxygen saturation of 92% or less when breathing air indicates the need for further assessment by measurement of partial pressure of oxygen (PaO_2) using an arterial blood gas sample. Hypoxaemia can result in right-sided heart failure, peripheral oedema and has a poor prognosis and untreated the 5-year survival is less than 50%. Long-term oxygen therapy can reduce the incidence of polycythaemia, reduce progression of pulmonary hypertension and improve survival in patients with COPD who have hypoxaemia.

Source guidance

Chronic obstructive pulmonary disease in over 16s: diagnosis and management. NICE guideline NG115 (2018, updated 2019), recommendation 1.2.140

Specification

Numerator: The number of patients in the denominator who have a record of oxygen saturation value within the preceding 12 months.

Denominator: The number of patients with very severe COPD (stage 4, FEV1% predicted less than 30%).

Calculation: Numerator divided by the denominator, multiplied by 100.

Exclusions: None.

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Minimum population: The indicator would be appropriate to assess performance at individual general practice level.

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