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Lung alert

Which COPD patients should be admitted to the ICU?

A total of 832 patients with obstructive lung disease aged 45 years and older were prospectively recruited from 92 intensive care units and 3 respiratory high-dependency units in the UK. Detailed physiological and functional data were collected on admission to intensive care and they were followed up for 180 days.

Mortality at 180 days was 37.9%. A scoring system was created from the data in order to predict mortality. The score uses the presence of the following parameters to predict poor outcome (in order of importance): abnormal acute physiology, poor functional status (bed or chair bound, house bound or restricted), atrial fibrillation, male sex, number of days in hospital before intensive care admission, reduced midarm circumference as a measure of nutrition and muscle mass, years of age over 70 and reduced Glasgow Coma Score. The COPD acute physiology score contains heart rate, mean arterial pressure, pH, sodium, urea, creatinine, albumin and white cell count. The score was found to be superior to the clinical judgement of participating clinicians.

The score could be used to support clinical reasoning prior to ICU admission of patients with COPD and put decision-making in this often underprivileged group on a more rational footing. Additionally, the scoring model could help risk adjustment for audit and research across different hospitals.

Results previously published from this study show that a large majority of patients with COPD achieve acceptable quality of life following their stay in the intensive care unit and would want to be readmitted under similar circumstances. This paper suggests that more should be done to help to get them this chance.

► Wildman MJ, Sanderson C, Groves J, *et al*. Predicting mortality for patients with exacerbations of COPD and asthma in the COPD and Asthma Outcome Study (CAOS). *QJM* 2009;**102**:389–99.

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