

36. **Chinn S**, Jarvis D, Luczynska CM, *et al.* An increase in bronchial responsiveness is associated with continuing or restarting smoking. *Am J Respir Crit Care Med* 2005;**172**:156–61.
37. **Betz R**, Kohlhäufel M, Kassner G, *et al.* Increased sputum IL-8 and IL-5 in asymptomatic nonspecific airway hyperresponsiveness. *Lung* 2001;**179**:119–33.
38. **Peat JK**, Woolcock AJ, Cullen K. Rate of decline of lung function in subjects with asthma. *Eur J Respir Dis* 1987;**70**:171–9.
39. **ten Brinke A**, Zwinderman AH, Sterk PJ, *et al.* Factors associated with persistent airflow limitation in severe asthma. *Am J Respir Crit Care Med* 2001;**164**:744–8.
40. **Bai TR**, Vonk JM, Postma DS, *et al.* Severe exacerbations predict excess lung function decline in asthma. *Eur Resp J* 2007;**30**:452–6.
41. **Sears MR**, Greene JM, Willan AR, *et al.* A longitudinal, population-based, cohort study of childhood asthma followed by adulthood. *N Engl J Med* 2003;**349**:1414–22.
42. **van Veen IH**, Ten Brinke A, Sterk PJ, *et al.* Exhaled nitric oxide predicts lung function decline in difficult-to-treat asthma. *Eur Resp J* 2008;**32**:344–9.
43. **Rasmussen F**, Taylor DR, Flannery EM, *et al.* Risk factors for airway remodeling in asthma manifested by a low postbronchodilator FEV₁/vital capacity ratio: a longitudinal population study from childhood to adulthood. *Am J Respir Crit Care Med* 2002;**165**:1480–8.
44. **Phelan PD**, Robertson CF, Olinsky A. The Melbourne Asthma Study: 1964–1999. *J Allergy Clin Immunol* 2002;**109**:189–94.
45. **Stern DA**, Morgan WJ, Wright AL, *et al.* Poor airway function among preterm infants whose mothers smoked during pregnancy. *Am J Respir Crit Care Med* 2007;**158**:700–5.
46. **Stein RT**, Holberg CJ, Sherrill D, *et al.* Influence of parental smoking on respiratory symptoms during the first decade of life. *Am J Epidemiol* 1999;**149**:1030–7.
47. **Wright AL**, Holberg C, Martinez FD, *et al.* Relationship of parental smoking to wheezing and nonwheezing lower respiratory tract illness in infancy. *J Pediatr* 1991;**118**:207–14.
48. **Palmer LJ**, Rye PJ, Gibson NA, *et al.* Airway responsiveness in early infancy predicts asthma, lung function, and respiratory symptoms by school age. *Am J Respir Crit Care Med* 2001;**163**:37–42.
49. **Covar RA**, Spahn JD, Murphy JR, *et al.* Progression of asthma measured by lung function in the childhood asthma management program. *Am J Respir Crit Care Med* 2004;**170**:234–41.
50. **Van De Ven MO**, Engels RC, Sawyer SM. Asthma-specific predictors of smoking onset in adolescents with asthma: a longitudinal study. *J Pediatr Psychol* 2009;**34**:118–28.
51. **Barker DJ**, Godfrey KM, Fall C, *et al.* Relation of birth weight and childhood respiratory infection to adult lung function and death from chronic obstructive airways disease. *BMJ* 1991;**303**:671–5.
52. **Martinez FD**, Morgan WJ, Wright AL, *et al.* Diminished lung function as a predisposing factor for wheezing respiratory illness in infants. *N Engl J Med* 1988;**319**:1112–7.
53. **Horvat JC**, Beagley KW, Wade MA, *et al.* Neonatal chlamydial infection induces mixed T-cell responses that drive allergic airway disease. *Am J Respir Crit Care Med* 2007;**176**:556–64.

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.

C Subbe

Correspondence to: Dr C Subbe, Department of Acute, Respiratory and Intensive Care Medicine, Wrexham Maelor Hospital, Wrexham, UK; csubbe@hotmail.com