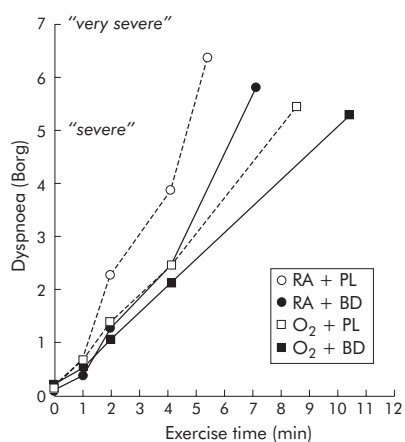


## COMBINATION THERAPIES FOR COPD

As Casaburi points out in his accompanying editorial to the paper by Peters and colleagues, COPD is now recognised as distinctly *not* a disease of irreversible airflow obstruction. A number of pharmacological and non-pharmacological interventions have shown reduction of dyspnoea and improvement of exercise capacity, but we have little information on the additive effects of these therapies and, indeed, this is how they will be used in practice. In this issue of *Thorax* Peters and colleagues show, for the first time, additive effects on dyspnoea and exercise capacity of bronchodilator therapy and supplemental oxygen in normoxic COPD patients. Endurance time increased by 16% with bronchodilators compared with placebo, by 28% with oxygen alone, and by 40% with the combination of bronchodilator and oxygen compared with the endurance time achieved on room air and placebo. The paper also describes some interesting insights into the mechanisms of these improvements and sets the stage



Mean Borg rating of dyspnoea over time during constant load cycle exercise at 75% peak work rate. Dyspnoea/time slope decreased significantly ( $p < 0.05$ ) with bronchodilators (BD) and 50% oxygen (O<sub>2</sub>), alone and in combination; the combination of O<sub>2</sub>+BD resulted in greater ( $p < 0.05$ ) dyspnoea relief than either BD or O<sub>2</sub> alone. PL, placebo; RA, room air.

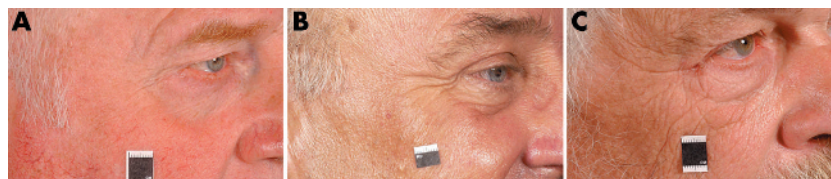
for future studies of simultaneous combination therapies in patients with COPD, including interventions such as pulmonary rehabilitation, heliox treatment, and ventilatory support.

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## FACIAL WRINKLING AND COPD

In this month's *Thorax* Patel and colleagues report on a new and interesting extrapulmonary feature associated with COPD—namely, facial wrinkling. It is known that cigarette smoking increases facial wrinkling and that wrinkling increases with smoking exposure. Smoking is the major cause of COPD, but susceptibility is notably variable in smokers. Patel and colleagues investigate whether there is a common susceptibility to COPD and facial wrinkling in cigarette smokers. They report that facial wrinkling is associated with the risk of airflow obstruction and this increased risk is independent of cumulative tobacco exposure. The Daniell score of extent of wrinkling (see photograph below) was correlated with the degree of emphysema on the CT scan and with the development of more severe emphysema. The authors consider that the relationship between facial wrinkling and COPD suggests that there may be a common mechanism and a common genetic susceptibility. They conclude that these results should promote the screening of wrinkled individuals for the presence of airflow obstruction.

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Daniell system for scoring the extent of facial wrinkling of the crows' feet area: (A) grade I, (B) grade III, (C) grade VI. Photographs reproduced with permission.

## RSV BRONCHIOLITIS AND BACTERIAL INFECTION

Respiratory syncytial virus (RSV) is the most important respiratory infection in childhood. Thorburn and colleagues remind us in their paper that in each year 600 000 deaths occur worldwide that are directly or indirectly attributable to RSV infection. Respiratory viral infection is often associated with bacterial infection and, in this issue of *Thorax*, Thorburn and colleagues describe a prospective study of the effect of bacterial infection on the outcome of bronchiolitis in children. They report that 42% of children with severe RSV bronchiolitis who required admission to paediatric intensive care had lower airway bacterial infection and these children were ventilated for a longer time. This emphasises the importance of careful antibiotic treatment in children with RSV bronchiolitis.

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## INFECTION IN STABLE ASTHMA

It is now well recognised that patients with COPD have increased lower airway bacterial colonisation in the stable state and also that respiratory viruses may be isolated from sputum in stable COPD. Harju and colleagues now report that they have isolated rhinovirus (cause of the common cold), *Chlamydia pneumoniae* and *Bordetella pertussis* (cause of whooping cough) in stable asthmatics free from exacerbation. However, it is likely that "subclinical" exacerbations may occur and could account for these findings. We need confirmation of these findings in larger studies with a wider range of micro-organisms both in stable asthmatics and at exacerbation.

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