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## **Lung alert**

## Interferon gamma-1b does not improve survival for patients with idiopathic pulmonary fibrosis

Idiopathic pulmonary fibrosis (IPF) is characterised by an insidious decline in pulmonary function, progressive worsening symptoms and death, with a median survival of 2–5 years from diagnosis. A methodologically limited meta-analysis has suggested that interferon  $\gamma$ -1b (IFN $\gamma$ -1b) might improve survival.

To test this hypothesis, the INSPIRE study group conducted a double-blind trial, randomising 826 patients with IPF to receive IFN $\gamma$ -1b or placebo. Patients had mild to moderately severe disease, with a forced vital capacity of 55–90% of the predictive value, a haemoglobin-corrected carbon monoxide transfer factor (TLCO) of 35–90% of the predictive value, and a 6-min walk distance (6MWD) of at least 150 m. The primary end point was overall survival time from randomisation.

The study was stopped early because, at the second interim analysis, the hazard ratio for mortality in patients receiving IFN $\gamma$ -1b showed an absence of minimum benefit compared with placebo. After a median duration of 64 weeks on treatment, 15% of patients on IFN $\gamma$ -1b had died compared with 13% on placebo. Furthermore, IFN $\gamma$ -1b did not significantly improve survival without lung transplantation, days without respiratory-related hospital admission, quality of life, 6MWD, forced vital capacity or TLCO. Patients receiving IFN $\gamma$ -1b reported more adverse events, but treatment adherence remained good.

This comprehensive study indicates that IFN $\gamma$ -1b does not improve survival or confer any other significant benefit in patients with mild to moderate IPF, hence the strong recommendation by the joint ATS/ERS/JRS taskforce announced at the ERS meeting in September 2009 that IFN $\gamma$ -1b should not be given to patients with IPF.

► King TE Jr, Albera C, Bradford WZ, et al. Effect of interferon gamma-1b on survival in patients with idiopathic pulmonary fibrosis (INSPIRE): a multicentre, randomised, placebo-controlled trial. Lancet 2009;374:222—8.

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