

Seventy-three patients received chemotherapy plus PF-3512676 and 37 patients received chemotherapy alone.

The observed response rate (assessed as a complete or partial response based on investigator assessment) was higher in the PF-3512676 group than in the group receiving chemotherapy alone (38% vs 19%). Although not all responses were confirmed radiologically, the authors felt that the response rate would have been even higher in the PF-3512676 arm if this had been the case. Despite more patients with stage IV disease in the PF-3512676 group, the median survival was 12.3 months compared with 6.8 months in the group receiving chemotherapy alone, with 1-year survival rates of 50% and 33%, respectively.

The addition of PF-3512676 was generally well tolerated. Phase III trials are in progress and may provide further evidence that the addition of PF-3512676 to taxane/platinum chemotherapy is safe and may prolong survival.

- Manegold C, Gravenor D, Woytowicz D, *et al.* Randomized phase II trial of a Toll-like receptor 9 agonist oligodeoxynucleotide, PF-3512676, in combination with first-line taxane plus platinum chemotherapy for advanced-stage NSCLC. *J Clin Oncol* 2008;**26**:3979–86.

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Functional limitations of COPD

Chronic obstructive pulmonary disease (COPD) affects both pulmonary and non-pulmonary systems and results in a wide range of physical functional limitations in sufferers. This study is an attempt to characterise the impact of COPD on non-pulmonary function.

One thousand and two patients from the Kaiser Permanente Medical Care Program (KPMCP) aged 40–65 years who met the criteria for a diagnosis of COPD and who had also received two or more prescriptions for COPD-related illness in the previous 12 months were recruited. The study participants were matched by age, sex and race with a reference group of 302 patients from the KPMCP who did not meet either of the criteria for a COPD diagnosis. Subjects participated in a series of validated assessments of physical function including short physical performance battery, 6-minute walk test and skeletal muscle strength testing. In addition, semi-structured interviews were used to provide information on self-reported functional limitation.

Not only was pulmonary function found to be significantly poorer in the study group, the patients with COPD were also

found to have significantly greater deficits in lower extremity functioning, exercise performance, muscle strength and had a higher rate of self-reported functional limitations. These deficits remained after potential confounding factors were accounted for—such as age, sex, race, height, educational attainment and cigarette smoking.

The authors conclude that the functional limitations found are specifically attributable to COPD; however, the impact of any co-morbidities is unclear. Interestingly, the majority of patients with COPD studied were GOLD stage 0–2 and therefore it seems that systemic manifestations have an impact even in mild patients. The age range of the participants means that the applicability of the study findings to those aged >65 years is uncertain and most likely underestimated.

- Eisner MD, Blanc PD, Yelin EH, *et al.* COPD as a systemic disease: impact on physical functional limitations. *Am J Med* 2008;**121**:789–96.

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Influenza vaccine may not protect elderly subjects from pneumonia

Influenza and complications associated with influenza including pneumonia impose a significant burden on the healthcare system, particularly in elderly individuals. Although the influenza vaccine could potentially reduce the risk of complications, its benefit in this group remains doubtful.

This population-based nested case-control study investigated whether the influenza vaccine reduced the risk of community acquired pneumonia in immunocompetent elderly individuals. The cohort comprised people aged 65–94 years who had enrolled in a health maintenance organisation in Washington State during the pre-influenza and influenza seasons in 2000, 2001 and 2002.

A total of 1173 individuals with pneumonia confirmed by medical records or chest radiography were included (714 of whom had been vaccinated against influenza). 2346 individuals without pneumonia (two age- and sex-matched for each case) served as controls (1838 of whom had not received the influenza vaccination). The presence of heart and lung diseases, frailty

indicators, smoking history, use of respiratory medications and routine prescriptions were reviewed and adjusted to reduce confounding factors. After adjustment, influenza vaccination was not associated with a reduction in community acquired pneumonia during the influenza season. The authors suggested two potential explanations; either influenza caused a small proportion of pneumonia in elderly people or the available vaccine was less effective in reducing the risk of pneumonia.

Although this was a large population-based study and raises important questions, more robust randomised controlled trials are needed to determine the effectiveness of the influenza vaccine in reducing influenza-related morbidity in this age group. Until this happens, the influenza vaccination will continue to be used as a health protective measure worldwide.

- Jackson ML, Nelson JC, Weiss NS, *et al.* Influenza vaccination and risk of community-acquired pneumonia in immunocompetent elderly people: a population-based, nested case-control study. *Lancet* 2008;**372**:398–405.

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