MedicalXpress

Flu vaccines can reduce respiratory problems by up to 3/4

April 15 2008

Annual flu vaccinations are highly effective at preventing acute respiratory illness and making sure that existing breathing problems don't get any worse, according to research published in the April issue of IJCP, the UK-based *International Journal of Clinical Practice*.

A study of 87 patients with chronic obstructive pulmonary disease (COPD) - a major cause of ill health and death - found that having the annual flu vaccine reduced overall problems by more than two-thirds.

The vaccinations were particularly effective at providing protection for patients with severe COPD, where the incidence of additional respiratory problems fell by three-quarters.

"COPD is a serious lung disease that causes breathing problems and is responsible for a significant number of outpatient and emergency department visits as well as inpatient hospital stays" says lead author Dr Balakrishnan Menon from the Vallabhbhai Patel Chest Institute at the University of Delhi, India.

"It has increased by 40 per cent since 1942 and is now the world's fourth leading cause of death and twelfth leading cause of disability. The World Health Organization (WHO) predicts that by 2020 it will become the third leading cause of death and rise significantly in the disability stakes to fifth place.

"Most of the healthcare costs associated with COPD are due to problems

that worsen the condition and infections caused by the influenza virus are major culprits.

“Despite the WHO’s recommendation that all patients with COPD should receive the annual flu vaccine, the injection is not used as widely as it could be, especially in developing countries.

“Our research suggests that this could be leading to higher levels of respiratory problems and that these extra healthcare costs could be avoided by improving the uptake of this simple preventative measure.”

The 87 male patients, who had an average age of just under 65, were monitored for a year before and after they received the vaccine. All had been diagnosed with COPD, but none of them had previously received the flu vaccine.

After the patients received the vaccine, the overall incidence of acute respiratory illness and acute exacerbation of COPD fell by 67 per cent, with 24 patients experiencing them before they received the vaccine and eight experiencing them in the post-vaccination period.

The effectiveness of the vaccine varied, depending on how badly people suffered from the disease. People with mild or moderate COPD saw a 60 per cent reduction in overall incidence and people with severe COPD enjoyed a 75 per cent reduction.

Outpatient visits fell by 50 per cent after vaccination and there was also a 70 per cent reduction in the number of study participants who were hospitalised.

During the two-year study period patients attended monthly check-ups and received the same level of medication, healthcare and lifestyle advice. Any respiratory problems were also carefully monitored.

The researchers were careful to ensure that no other factors clouded the results so that they could observe the effect of the influenza virus more efficiently. This included having an all male study group. Fewer women met the study criteria, mainly because they were less likely to smoke – 83 per cent of the men in this study were current or former smokers.

“Influenza viruses are a major cause of death and serious illness in elderly people, particularly if they suffer from COPD” concludes Dr Menon.

“Our study was undertaken in a population where uptake of the vaccine is traditionally low and it had a marked effect on the men who received it. This could also explain why our 67 per cent reduction was higher than the 32 to 45 per cent falls reported by previous studies carried out in populations where the vaccine is more common.

“We believe that our research underlines the importance of increasing vaccine use worldwide, especially in patients with COPD and in areas where the flu vaccination rate is low.

“It is clear that annual flu vaccinations have a major role to play in bringing down the number of preventable deaths and hospital admissions that occur every year in patients with chronic lung diseases.”

Source: Wiley

Citation: Flu vaccines can reduce respiratory problems by up to 3/4 (2008, April 15) retrieved 25 April 2024 from https://medicalxpress.com/news/2008-04-flu-vaccines-respiratory-problems.html

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