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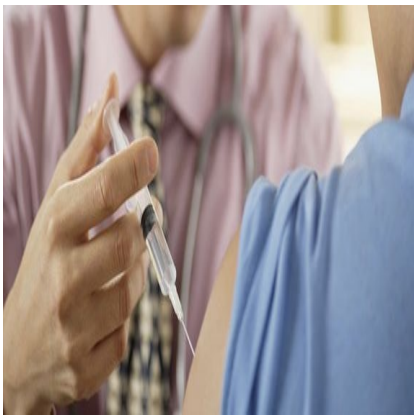
Seasonal Flu Vaccine Linked to Lower Stroke Risk



A recent study conducted by a team of academics from the UK's University of Lincoln and The University of Nottingham, and published in the scientific journal Vaccine, has found that patients who had been vaccinated against influenza were 24% less likely to suffer a stroke in the same flu season.

During previous research in 2010 the same team showed a similar link between flu vaccination and reduced risk of heart attack.

Professor Niro Siriwardena is the study's lead investigator, GP and Research Lead with Lincolnshire Community Health Services NHS Trust as well as Professor of Primary and Pre-hospital Healthcare in the School of Health and Social Care at the University of Lincoln. He explained that causes of stroke are not fully understood and classical risk factors such as a person's age, smoking and high blood pressure can account for just over half of all cases. He went on to say that cardiovascular diseases had a tendency to increase during winter, with risks possibly heightened by respiratory infections such as flu. Siriwardena pointed out that the study's results were consistent with the team's previous research into heart attack risk, showing a highly significant association between flu vaccination and reduced risk of stroke within the same flu season.

In order to obtain data for their study, Zahid Asghar, statistician on the project, supported by Dr Carol Coupland (University of Nottingham), conducted the analysis of records from more than 47,000 patients who had suffered a stroke or TIA (transient ischaemic attack, or "mini stroke") between 2001 and 2009. Information was taken from the UK's national General Practice Research Database (now the Clinical Practice Research Datalink). Apart from investigating flu vaccine take-up, pneumococcal vaccination (against infections like pneumonia) take-up was also looked at.

It was found that flu vaccination was linked to a 24% reduction in risk of stroke, with the reduction being strongest if the vaccination was administered early in the flu season. There was no statistically significant change in risk of TIA with flu vaccination and pneumococcal vaccination did not show to reduce risks of either stroke or TIA.

The study, called IPVASTIA, used a matched case-control design, wherein actual cases of stroke were compared against 'control' patients, and adjusted for other factors that might explain the differences in risk associated with flu vaccination such as existing diseases, age and treatment history. In order to identify risk factors in large samples this type of analysis is widely used in health research, despite the fact that it cannot prove direct cause-and-effect relationships.

In concluding, Professor Siriwardena added further experimental studies would be needed to improve

understanding of the relationship between flu vaccination and stroke risk. He stressed however, that these findings reinforced the value of the UK's national flu vaccination programme, with the reduced risk of stroke seemingly being an added health benefit.

In the UK, recommendations are for the seasonal flu vaccination to be given to everyone over 65 years of age and other at-risk groups, like those with disabilities or chronic illnesses sufferers.

Take-up of the vaccine across England is lower than national targets at 74% for over-65s in 2011/12 and around 52% for under-65s in at-risk groups.

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