

## PRESS STATEMENT

### ***Influenza vaccination of the elderly does make sense!***

#### ***Alternative analysis of Cochrane review counters misconceptions about influenza vaccination of the elderly***

*Ghent, 21 October 2013* - There are now more people over the age of 65 than have ever reached this age in the history of mankind. As life expectancy continues to rise, healthy ageing is an increasingly important public health issue. The ageing population and its increasing frailty may lead to a significant rise in social welfare expenditure unless effective preventive public health policies are implemented. Whether such policies should include annual vaccination of the elderly against influenza has been a matter of scientific debate. A paper recently published in the medical journal *Vaccine* provides evidence of the effectiveness of influenza vaccination of the elderly.

90% of influenza-related deaths occur in elderly people. The impact of influenza in terms of independence and care needs is even more important. For every influenza death, there are three to four influenza hospitalisations, and most occur in people over the age of 65. Influenza adds to the immanent frailty and may lead to severe complications, rendering the elderly care-dependent, in many cases indefinitely. Yet, vaccine effectiveness review reports recently published by the Cochrane Collaboration have questioned the benefit of influenza vaccination, causing confusion amongst the elderly and their healthcare providers.

Encouraged by the invitation of the Cochrane authors to produce “any alternative interpretation” of the evidence, Walter E.P. Beyer (Department of Viroscience, Erasmus MC, Rotterdam, The Netherlands), Janet McElhaney (Advanced Medical Research Institute of Canada, Ontario, Canada), Derek Smith (Department of Zoology, University of Cambridge, UK), Arnold Monto (School of Public Health, University of Michigan, US), Jonathan S. Nguyen Van-Tam (University of Nottingham, UK) and Ab Osterhaus (Head of Department of Viroscience, Erasmus MC, Rotterdam, The Netherlands) have now conducted a new collaborative study on the same data used by the Cochrane statisticians: 75 articles from a database of 4,000 publications, using mainly observational studies.

“Cochrane statisticians performed 100 single meta-analyses, according to various vaccine types, study designs, populations and outcome case definitions,” says co-author Dr. Janet McElhaney. “They do not successfully distinguish between seasons with high, mild or no circulation at all of an influenza virus. Nor do they successfully distinguish between vaccines with a good or a poor match for circulating flu strains. Another problem is that their analysis is guided mainly by formal and not by biological criteria. These methods prompted the Cochrane analysts to conclude that influenza vaccine is more effective in frail older people who live in assisted living or nursing homes than in community-dwelling elderly people – from a biological perspective, this makes no sense.”

The new study re-arranged the published data according to the basic sequence of events in the patient journey (exposure, infection, outcome/disease, and observation) to construct a biological framework instead of the formal, mathematical approach. “The findings of this ‘Cochrane re-arranged study’ provide ample evidence of the

ability of influenza vaccines to reduce the risk of influenza infection and death, but also – and this is very important – the risk of frailty.” says Dr. McElhaney. “In other words, within a biological framework, Cochrane’s data reveal the efficacy of vaccinating the elderly. This key finding is of major benefit to society as it will not only help to avoid unnecessary deaths, it will help to minimize the permanent loss of vitality that is all too often a consequence of serious influenza illness.”

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**Note to the editors:**

*The “Cochrane re-arranged” study and its supportive materials are attached to this press release. The study is available online **in an uncorrected version** at <http://www.sciencedirect.com/science/article/pii/S0264410X1301339X>*

*The “Cochrane re-arranged” study has been commissioned by the European Scientific Working group on Influenza (ESWI), a network of scientific experts and influenza stakeholders who aim to reduce the burden of influenza on the European population. ([www.eswi.org](http://www.eswi.org))*

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