

We should give the influenza vaccine to elderly patients in rest homes who are suffering from severe dementia

Lance C Jennings

QSO, PhD, FRCPath,
Clinical Associate
Professor, Microbiology
Department, Canterbury
Health Laboratories and
Department of Pathology,
University of Otago,
Christchurch,
New Zealand
lance.jennings@cdhb.
govt.nz

YES

Introduction

All elderly people, especially those in institutions such as rest homes and chronic-care facilities, are at risk from influenza during each influenza season, especially if afflicted by underlying medical conditions such as dementia. Indeed influenza morbidity and mortality is higher in individuals living in nursing homes than the non-institutionalised elderly. It is also well recognised that influenza vaccine reduces the complications of influenza and mortality from complications in the elderly. Thus, any argument against the giving of an annual influenza vaccination to individuals at increased risk from influenza flies in the face of current public health recommendations.

Outbreaks in rest homes

Elderly people are more vulnerable to infections which cause influenza and lead to pneumonia and have an increased risk of developing complications; indeed pneumonia is a leading cause of death in elderly people.¹ Because of the occurrence of immunocenesence in the elderly, typical outward clinical signs of influenza and pneumonia, such as fever and cough, are often not observed, leading to delayed recognition and

consequent access to health care services. Elderly people with dementia are particularly vulnerable because of the additional difficulties they have in communicating their symptoms. Where they live in rural communities, then access to hospital care can be further delayed.

Outbreaks of influenza in closed communities can be devastating. Although there are limited reports of influenza outbreaks in rest homes in New Zealand, in two outbreaks documented in hospital wards catering for assessment, treatment and rehabilitation of elderly patients, the clinical influenza attack rates were 48% and 58% respectively with 46% of those with influenza developing lower respiratory tract complications and 7% dying.² Substantial disruption to rehabilitation of these patients and restricted access to assessment and rehabilitation services by others both in the community and within the health care system occurred through ward closure.

Benefits of vaccination

Influenza vaccination provides our best protection against influenza. In the Everts study, only 18% of the elderly had received an influenza vaccine; however, importantly, their clinical attack rate was lowered to 21%.² The effectiveness of inactivated influenza vaccines in elderly persons residing in nursing homes in observational studies has

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Lance Jennings



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While evidence can help inform best practice, it needs to be placed in context. There may be no evidence available or applicable for a specific patient with his or her own set of conditions, capabilities, beliefs, expectations and social circumstances. There are areas of uncertainty, ethics and aspects of care for which there is no one right answer. General practice is an art as well as a science. Quality of care also lies with the nature of the clinical relationship, with communication and with truly informed decision-making. The **BACK TO BACK** section stimulates debate, with two professionals presenting their opposing views regarding a clinical, ethical or political issue.

ranged from 23% to 56% for respiratory illness and influenza-like illness, 46 to 53% for pneumonia, 45% to 48% for hospitalisation, and 60% to 68% for death.³ In the Everts study, vaccine effectiveness was likely reduced because of a poor vaccine match with the circulating H3N2 virus.

Influenza outbreaks have been attributed to low vaccination rates amongst health care workers in hospitals and chronic care facilities. In the Everts study, the attack rate amongst staff for each outbreak was 36% and 69% respectively, with the overall staff vaccination rate being 12%.² It is not only doctors and nurses, but other health-care professionals, cleaners and porters who have substantial rates of influenza during the influenza season.⁴ These infections are often mild or subclinical and staff continue to work. Observational studies have demonstrated that vaccination of health care staff is associated with decreased deaths among nursing home patients.⁵ Perhaps of more relevance is the outcomes from a cluster-randomised study in 44 nursing homes which demonstrated significant decreases in influenza-like illness, medical visits for influenza-like illness and mortality among residents in nursing homes in which staff were offered influenza vaccination (coverage rate: 48% vs 6% in staff not offered vaccination).⁶

Decreasing influenza virus transmission from caregivers to contact persons at high risk is the main objective of health care worker vaccination programmes (essentially relying on the concept of herd immunity to reduce the risk of outbreaks); however a Cochrane review concluded that vaccination of health care workers in settings had a significant effect on influenza-like illness only when patients also were vaccinated. Significant reductions in deaths were seen among elderly patients from all causes and deaths from pneumonia.⁴

In the Everts study,² the requirement for additional diagnostic tests (x-rays etc.), medication, and staff sick leave was not assessed. However it is well recognised that these are associated with additional financial costs. Economic studies have been carried out among persons aged >65 years, and although difficult to compare, have estimated substantial reductions in hospitalisations and deaths and associated overall societal cost savings.⁷ Vaccination of those >65 years, which

although greater in the 60–64 year age group, showed net savings in terms of quality-adjusted life years (QALY) and showed saved costs of treating illness.

Recent questions have been raised in the literature regarding the estimation of influenza vaccine effectiveness in reducing mortality in the elderly and the many biases associated with observational studies. Nevertheless studies continue to show reductions in mortality and, if vaccination only reduced influenza-like illness and hospitalisation in the elderly, these benefits must justify vaccination.³

In closing my discussion, influenza vaccination leads to a cost-effective reduction in morbidity and mortality in most nursing home or chronic care institutional settings. The systematic review conclusion that optimal vaccination outcomes are achieved when both staff and residents of these institutional settings are vaccinated clearly indicates that all elderly patients in rest homes, including those with dementia (severe or otherwise) should receive an annual influenza vaccination. Influenza vaccines are different from other kinds of preventive treatment because vaccination provides a benefit for the whole community at risk and not just the individual patient. However, there are disparities in practices,⁸ and the best outcomes must surely be achieved when everyone is vaccinated.

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