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

Nikki Turner MBChB, FRNZCGP, MPH, Director, Immunisation Advisory Centre and Senior Lecturer, Department of General Practice and Primary Health Care, The University of Auckland, PB 92019, Auckland 1142, New Zealand n.turner@auckland.ac.nz

NO

Introduction

Influenza is a highly contagious respiratory illness with significant morbidity and mortality in all population groups, particularly the elderly.

The current evidence around the effectiveness of influenza vaccines in the elderly remains uncertain.1 While there is good evidence for effectiveness in younger populations, vaccines are less effective as people get older due to the less vigorous immune response associated with ageing and increasing rates of underlying medical conditions. Published figures of immunisation vaccination effectiveness in the elderly suggest effectiveness rates of 23-60% for preventing illness, 30-50% in preventing hospitalisation and 27-75% in reducing mortality.2 Despite the limitations of influenza vaccination in the elderly overall, it is still considered a cost-saving measure to reduce both morbidity and mortality.3 Furthermore newer vaccines with better technology including improved adjuvants, novel antigen production methods and alternative routes of delivery are expected to improve the effectiveness in this age group.4

Who to vaccinate?

The majority of the medical literature defines 'elderly' as all those over 65 years, and may then divide them into two somewhat arbitrary groups of community-living elderly and those in institutional care.

However all elderly are not the same. An elderly person in their late 60s who has retired with a good pension and is running marathons may well have an enviable quality of life. In contrast, someone with severe dementia who is severely in-

capacitated and fully institutionalised is likely to have a very different quality of life. It is within this second scenario that we need to consider the rationale for offering an influenza vaccination.

The first rationale for use of the vaccine is to reduce mortality: in a severely incapacitated patient the overall effectiveness of the vaccine to prevent death is low and it is unlikely that the individual or any of their caregivers or family would be interested in prolonging life just for the sake of prolonging life.

Secondly, there may be the potential to reduce morbidity: the argument for using the vaccine to reduce pain and discomfort from catching the disease of influenza needs to be considered. However, is the use of a preventative vaccine the best way in this group to reduce pain and discomfort? While influenza can be an extremely unpleasant disease, good medical care can be highly effective at managing discomfort and distress. Efforts to avoid influenza may just be shifting the cause of death to a condition that could be a great deal more uncomfortable. Part of the consideration here is whether influenza might aid a 'comfortable death' in a severely demented and incapacitated patient.

The third reason for use of the vaccine could be to reduce the spread of disease to others and hence reduce the overall community burden of influenza. However, the current vaccines are unlikely to be very effective in the frail elderly and this particular group is unlikely to be mixing with the wider community to any large extent. If we wish to reduce the spread of influenza specifically to this group, the most effective strategy would be to vaccinate those who are more likely to respond to the vaccine such as family members, caregivers and health care workers.

Turner N. We should give the influenza vaccine to elderly patients in rest homes who are suffering from severe dementia—the 'no' case. J Prim Health Care. 2011;3(1):60–61

Who wants influenza protection?

A study reviewing the evidence for bias in studies of influenza vaccine effectiveness in elderly patients showed that the main reason for bias was that patients who were nearer death were less likely to receive influenza vaccination.5 This could be because the patient, or family, is choosing not to have the vaccine or the health provider is choosing not to offer flu vaccination. Despite population-based recommendations, the study cited above demonstrates that there is currently a lot of individual decision-making going on differentiating between groups of elderly and not treating all the same. However, this has yet to be articulated in the literature or at policy decisionmaking levels. A fascinating study looking at people's decision-making processes around limited health resources made the statement 'it is critical to understand how the public thinks life should be valued and the underlying mechanisms that give rise to these value judgements'.6 All elderly are not the same. If we demand whole population influenza vaccination then we are imposing population-based principles on a very diverse group of individuals. A healthy, mobile, socially connected individual may make a very different decision on preventive issues for themselves than an institutionalised individual with minimal social connectivity and a poor quality of life. What right have we to group all these individuals who have such marked differences as having the same health value judgements? A rational, but also a humane and compassionate health system would allow flexibility in recognising that all elderly are not the same, and have the right to consider different options for different phases of life.

Conclusions

While it is a difficult ethical dilemma to try and speak for those who cannot necessarily answer for themselves, there is no evidence to support the assumption that a demented elderly patient would choose to prevent influenza. We all die eventually; the issue, particularly for the very frail elderly, is more about the nature of how we die. If as a frail and demented patient I can be sure that my influenza can be managed well to keep me comfortable, then I have no need of a preventive vaccine, even if it shortens my life ex-

pectancy. It is time for us to engage in more conversation around value judgements such as this and not just rely on population-based answers for individual dilemmas.

References

- Jefferson T, Di Pietrantonj C, Al-Ansary LA, Ferroni E, Thorning S, Thomas RE. Vaccines for preventing influenza in the elderly. Cochrane Database of Systematic Reviews 2010:2:CD004876
- Song JY, Cheong HJ, Hwang IS, et al. Long-term immunogenicity of influenza vaccine among the elderly: Risk factors for poor immune response and persistence. Vaccine. 2010;28:3929–35.
- Deans GD, Stiver HG, McElhaney JE. Influenza vaccines provide diminished protection but are cost-saving in older adults. J Int Med. 2010:267:220–7.
- Stephenson I, Hayden F, Osterhaus A, et al. Report of the fourth meeting on 'Influenza vaccines that induce broad spectrum and long-lasting immune responses', World Health Organization and Wellcome Trust, London, United Kingdom, 9-10 November 2009. Vaccine. 2010;28:3875–82.
- Baxter R, Lee J, Fireman B. Evidence of bias in studies of influenza vaccine effectiveness in elderly patients. J Infect Dis. 2010;201:186–9.
- 6. Li M, Vietri J, Galvani AP, Chapman GB. How do people value life? Psychol Sci. 2010;21:163–7.