Available evidence insufficient to assess safety and effectiveness of flu vaccines for older people

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Vaccines for preventing flu in older people

Flu is a major cause of morbidity and mortality, and one of the cornerstones of its control is annual vaccination. This Cochrane Review looks at the prevention of seasonal flu in people aged over 65 years. Despite finding a large number of studies, the authors were unable to come to a conclusion about the effect of vaccination in this group, in part because of the low methodological quality of the studies reviewed.

Vaccine research is complex, and the complexities are multiplied when disparate studies are combined, which also probably accounts for some of the lack of effect seen. First are the general research issues of defining variables, in particular which outcomes should be measured. The primary outcomes were those related to the number of cases of flu or flu-like illness and flu-related complications. As the authors note, there are a variety of case definitions of flu, making direct comparison extremely difficult and potentially misleading. In addition, a variety of designs can be used, including randomised controlled trials, cohort studies and case–control studies, each of which has a valid, but different, place in vaccine research.

The purposes of vaccination also need to be considered. All vaccines aim to prevent or reduce disease severity in the recipient, but sometimes the additional effect of herd immunity is required. Flu is not particularly infectious in comparison with many other viruses, so herd immunity should be relatively easy to achieve. However, this is clearly not possible if vaccination is restricted to particular groups, unless the infection is found only in those groups, which is not the case in the studies reviewed here.

Importance of vaccination

Although the authors of this study were unable to come to an overall conclusion, this was, as they note, probably due in large part to methodological limitations, many of which are inherent in vaccine research and are exacerbated in the case of flu. However, within the literature there is good evidence for the beneficial effect of flu vaccination, and there are likely to be moves to increase the recommended groups in most countries in the future.

Competing interests None.

References

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