to be the most promising candidate, but it needs to be thoroughly evaluated.

Pippa Scott MSc
Anke Huss PhD
Institute of Social and Preventive Medicine, University of Bern
Andreas E. Stuck MD
Department of Geriatrics, Inselspital University Hospital, Bern, Switzerland
Caroline Trotter PhD
Department of Social Medicine, University of Bristol, Bristol, United Kingdom
Matthias Egger MD MSc
Institute of Social and Preventive Medicine, University of Bern, Bern, Switzerland

Competing interests: None declared.

REFERENCES

1. Huss A, Scott P, Stuck AE, et al. Efficacy of pneumococcal vaccination in adults: a meta-analysis. *CMAJ* 2009;180:48-58.
2. Andrews R, Moberley SA. The controversy over the efficacy of pneumococcal vaccine. *CMAJ* 2009;180:18-9.
3. Moberley SA, Holden J, Tatham DP, et al. Vaccines for preventing pneumococcal infection in adults. *Cochrane Database Syst Rev* 2008;(1):CD000422.
4. Guyatt GH, Oxman AD, Vist GE, et al.; GRADE Working Group. GRADE: an emerging consensus on rating quality of evidence and strength of recommendations. *BMJ* 2008;336:924-6.
5. World Health Organization. 23-Valent pneumococcal polysaccharide vaccine: WHO position paper. *Wkly Epidemiol Rec* 2008;83:373-84 Available: www.who.int/wer/2008/wer8342.pdf (accessed 2009 Apr. 29).
6. World Health Organization. Pneumococcal vaccines: WHO position paper. *Wkly Epidemiol Rec* 2003;78:110-9 Available: www.who.int/wer/2003/en/wer7814.pdf (accessed 2009 Apr. 29).

DOI:10.1503/cmaj.1090018

The commentators respond:

Our commentary[1] was intended as a critical review of the evidence base provided by Anke Huss and colleagues' meta-analysis.[2] We challenged what we perceived as an implied recommendation for countries to cease vaccination programs with polysaccharide pneumococcal vaccine for adults if they had an existing program for children.

We agree that the major area of debate and uncertainty concerning meta-analyses of clinical trials relates to efficacy against invasive pneumococcal disease and that the results of such analyses are greatly dependent on the selection of trials for inclusion. On this point, we queried the basis reported by Huss and colleagues for excluding 2 studies[3,4] from their meta-analysis and including another.[5] It is unfortunate that these concerns were not addressed in their letter. For the reasons given in our commentary, we suspect the inclusion or exclusion of these 3 studies to be methodologic errors in the meta-analysis undertaken by Huss and colleagues.

Prevention of invasive pneumococcal disease is the primary purpose of vaccination programs with polysaccharide pneumococcal vaccine in adults. We contended that the World Health Organization had considered the findings of the meta-analysis by Huss and colleagues in its recent position paper on the use of pneumococcal vaccine in adults but that its recommendations had remained "virtually unchanged."[6] We accept the points of clarification by Huss and colleagues on the subtle wording changes they identified, but by our reading the World Health Organization falls well short of calling for cessation of existing polysaccharide pneumococcal vaccine programs for adults in its recent position paper. In their letter, Huss and colleagues appear to have moved away from this suggestion, which we think is appropriate given the evidence provided in their review.

Rather than demonstrating a lack of convincing evidence of efficacy after 60 years of research on the polysaccharide pneumococcal vaccine, we think the study by Huss and colleagues further highlights the limitations of the available clinical trial data when assessing the vaccine's impact against rare events like invasive pneumococcal disease. The most recent and best quality clinical trials, as determined by Huss and colleagues, were conducted largely among populations with chronic illness or severe immunosuppression or both. In these trials there were very few cases of invasive pneumococcal disease: 7 cases of definitive pneumococcal pneumonia from 2 studies and 44 cases of bacteremia from 6 studies (most of which were among HIV-infected adults in Uganda).

As we stated in our commentary, the World Health Organization's position is that the data from randomized trials, meta-analyses of randomized trials and most observational studies are consistent with a protective effect against invasive pneumococcal disease among healthy adults and, to a lesser extent, among adults aged 65 years and older.[6] We welcome calls to investigate new approaches with new vaccines, but on the basis of the evidence provided by Huss and colleagues, we see no compelling rationale for excluding polysaccharide pneumococcal vaccine from these considerations.

Ross M. Andrews PhD MPH
Sarah A. Moberley BN MPH
Child Health Division, Menzies School of Health Research, Casuarina, Northern Territory, Australia

Competing interests: None declared.

REFERENCES

1. Andrews R, Moberley SA. The controversy over the efficacy of pneumococcal vaccine. *CMAJ* 2009;180:18-9.
2. Huss A, Scott P, Stuck AE, et al. Efficacy of pneumococcal vaccination in adults: a meta-analysis. *CMAJ* 2009;180:48-58.
3. Kaufman P. Pneumonia in old age. *Arch Intern Med* 1947;79:518-31.
4. Riley ID, Tarr PI, Andrews M, et al. Immunization with a polyvalent pneumococcal vaccine. Reduction of adult respiratory mortality in a New Guinea Highlands community. *Lancet* 1977;1:1338-41.
5. Honkanen PO, Keistinen T, Miettinen L, et al. Incremental effectiveness of pneumococcal vaccine on simultaneously administered influenza vaccine in preventing pneumonia and pneumococcal pneumonia among persons aged 65 years or older. *Vaccine* 1999;17:2493-500.
6. World Health Organization. 23-Valent pneumococcal polysaccharide vaccine: WHO position paper. *Wkly Epidemiol Rec* 2008;83:373-84 Available: www.who.int/wer/2008/wer8342.pdf (accessed 2009 Apr. 9).

DOI:10.1503/cmaj.1090019

Correction

In the April 28 editorial,[1] we stated that the Canada Health Act is 24 years old. In fact, it received Royal Assent and came into effect on April 1, 1984, 25 years ago.

REFERENCE

1. Hébert PC. An open letter to the minister of health. *CMAJ* 2009;180:903.

DOI:10.1503/cmaj.090814