

Which H1N1 vax strategy is good value for money?

Three studies presented at the 14th International Congress on Infectious Diseases examined the costs and outcomes associated with vaccinating against the H1N1 subtype of the influenza A virus, and its possible complications.

The first study was conducted by researchers from Canada, and used a model to assess the cost utility of Ontario's 2009 H1N1 influenza virus mass immunisation strategy (among 30% of the population).¹

Ontario's immunisation programme was estimated to cost an additional \$Can1645 per QALY gained, compared with no immunisation, and thus be "highly cost-effective", say the researchers; this conclusion was supported by extensive sensitivity analyses.

Pneumococcal vaccination worth it in Brazil

In the second study, US-based researchers found that vaccinating high-risk individuals to prevent secondary bacterial infections related to pandemic influenza would be worth it in Brazil.²

Their model assumed that no pandemic vaccine is available, and a 23-valent pneumococcal polysaccharide vaccine would be administered to high-risk individuals and critical workers at the beginning of, or during, an influenza pandemic. This strategy would cost an additional \$Brz1700/QALY* during a severe pandemic (such as that in 1918), and \$Brz18 000/QALY during a moderate pandemic (1957/1968), compared with no vaccination.

Stockpiling pneumococcal vax could pay off

The third study showed that stockpiling Pneumovax 23 vaccine can be a cost-effective strategy for reducing the economic and morbidity burden of pandemic influenza in the high-risk US population.³

The US-based authors modelled a 1918-type (severe pandemic) scenario, and found that, based on a population of 20 million high-risk adults, a strategy of stockpiling pneumococcal vaccine would avert 185 000 days of work loss, 12 100 pneumococcal cases, 1690 hospitalisations, and 3592 deaths, at a cost of \$US4661/QALY versus no vaccination strategy. Under a 1958/1968 (moderate pandemic) scenario, a strategy of stockpiling pneumococcal vaccine would cost an extra \$US83 039/QALY, compared with no such strategy.

* 2008 Brazilian reals

1. Sander B, et al. Is a mass immunization program for pandemic (H1N1) 2009 good value for money? Early evidence from the Canadian experience. 14th International Congress on Infectious Diseases : abstr. 65.010, 9 Mar 2010. Available from: URL: <http://www.isid.org/14th%5Ficid>.
2. O'Brien M, et al. Cost-effectiveness of the use 23-valent pneumococcal polysaccharide vaccine to prevent secondary bacterial infections related to pandemic influenza in Brazil. 14th International Congress on Infectious Diseases : abstr. 83.014, 9 Mar 2010. Available from: URL: <http://www.isid.org/14th%5Ficid>.
3. Dhankhar P, et al. Cost effectiveness of Pneumovax (Rm) 23 stockpile to prevent secondary pneumococcal infections among a high-risk population in the United States during an influenza pandemic. 14th International Congress on Infectious Diseases : abstr. 83.013, 9 Mar 2010. Available from: URL: <http://www.isid.org/14th-icid>.