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■ CORRESPONDENCE ■

Is Hib Vaccine of Economic Value in South Korea?

We welcome the article from Shin and colleagues on the cost-benefit of *Haemophilus influenzae* type b (Hib) immunization in Korea (1). The introduction of Hib vaccine into national immunization programmes has increased considerably during the past few years. While 91 countries had introduced the vaccine in 2005, 138 had done so in 2008 (2). Thirty-three of these additional 46 countries receive support from the GAVI Alliance (formerly the Global Alliance for Vaccines and Immunization) for Hib vaccine, while 13 countries have introduced the vaccine with government funds (3). In Asia, the large countries of India, Pakistan and Bangladesh are currently introducing the vaccine.

The overall conclusion made by Shin et al. (1) is that Hib vaccine is not economically efficient enough to introduce in Korea, partly due to the relatively high price of Hib vaccine and also due to the low Hib disease incidence. We wish to question this conclusion and some of the assumptions made to derive it. Firstly, Shin et al. used a public sector Hib vaccine price of US$20 per dose which seems unrealistically high. There are no published records of governments paying such a high public sector price for Hib vaccine. The US public sector price is between US$9 and US$11 per dose (4). In Australia, the government pays US$8 per dose (5). Shin et al. (1) states that if the price was less than US$16 per dose the vaccine would be economically efficient. Hence, if the analysis in the paper had been based on a public sector price comparable to other countries, the overall conclusion would have been opposite to their conclusion. The vaccine is in fact cost-saving. Secondly, the assumption made about Hib pneumonia incidence is unclear. The authors cite a reference from the United States for the ratio of pneumonia to meningitis incidence (6), which included only the incidence for invasive Hib disease and not all Hib pneumonias, and indicated that the number of meningitis cases is far higher than the number of pneumonia cases. However, the calculations used to estimate the pneumonia burden of disease were not stated clearly, and there are problems in extrapolating data from countries with such different demographics. In fact, Hib pneumonia is commonly thought to be much more prevalent than Hib meningitis in Asia (7). Lastly, we disagree with the underlying notion of Shin et al. that economic efficiency is only achieved if an intervention is proven to be cost-saving. Governments and policy makers are normally prepared to pay for improvement in the health of their populations. Economic analysis should, therefore, be used as one of many factors to guide the decision to choose among alternative health technologies.

REFERENCES

1. Shin S, Shin YJ, Ki M. *Cost-benefit analysis of haemophilus influenzae type B immunization in Korea. J Korean Med Sci 2008; 23: 176-84.*
2. WHO. *Year of introduction of selected vaccines database. Available at http://www.who.int/immunization_monitoring/data/data_subject/en/index.html [accessed 1 October 2008]*
3. GAVI: The Global Alliance for Vaccines and Immunization. *Available at http://www.gavialliance.org [accessed 1 October 2008]*
4. Center for Disease Control. *CDC vaccine price list. Available at http://www.cdc.gov/vaccines/programs/vfc/cdc-vac-price-list.htm [accessed 1 October 2008]*
5. Australian Government, Department of Health and Ageing. *National Vaccine Schedule. Available at http://www.immunise.health.gov.au/internet/immunise/publishing.nsf/Content/F1C216A4E7C1DCC6CA25719D001833AB/$File/vaccineschedule.pdf*
6. Zhou F, Bisgard KM, Yusuf HR, Deuson RR, Bath SK, Murphy TV. *Impact of universal Haemophilus influenzae type b vaccination starting at 2 months of age in the United States: an economic analysis. Pediatrics 2002; 110: 653-61.*
7. Gessner BD, Sutanto A, Linehan M, Djelantik IG, Fletcher T, Gerudud IK, Ingerani, Mercer D, Moniaga V, Moulton LH, Moulton LH, Mulholland K, Nelson C, Soemohardjo S, Steinhoff M, Widjaya A, Stoeckel P, Maynard J, Arjoso S. *Incidences of vaccine-preventable Haemophilus Influenzae type b pneumonia and meningitis in Indonesian children: hamlet-randomised vaccine probe trial. Lancet 2005; 365: 43-52.*

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