



Systematic Review of Health Economic Evaluation Study on New Herpes Zoster Vaccine for Elderly

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Abstract

This systematic review aims to collect and analyze all economic evaluations of the Herpes Zoster vaccine published worldwide to assess its economic value and context. The authors systematically searched in 4 electronic databases including Medline, Scopus, Google Scholar, and Google Search Engine from inception to August 2020. The inclusion criteria is a true economic evaluation, assessing the efficiency of the new Herpes Zoster vaccine. A standardized form was designed to extract relevant information and assessed for the quality of all included full-text studies, using the standard guideline. The authors screened 771 records obtained from the search, and 620 records were excluded since their titles and abstracts indicate that they were not true economic evaluation studies. Then, the remaining 151 records were recruited for the second screening, of which 63 were duplicated, 47 were economic evaluations of Varicella vaccine, 26 were old live-attenuated Zoster vaccine, and 6 were non-English language. Finally, 9 full-text studies were included. All of them were conducted in the developed countries and employed a cost-utility analysis approach. Six studies showed that the new vaccine against Shingles was cost-effective whereas the other 3 studies from the United States, Hong Kong, and Japan indicated the opposite. Based on the standard economic evaluation reporting checklist, all 9 studies were of high quality. Under the context of the most developed countries, the new Herpes Zoster vaccine offers a good value for money. However, some countries need to decrease the vaccine price to be a cost-effective intervention. Health policymakers can use these results for supporting policy decisions on this vaccine implementation.

Keywords: *recombinant zoster vaccine, Herpes Zoster, vaccine, economic evaluation, systematic review*