

## **Routine Shingles Vaccination in 50-Year-Olds Does Not Pay**

*By: Diana Phillips, Medscape Medical News*

Routine vaccination against herpes zoster in 50-year-old adults with healthy immune systems does not appear to be cost-effective, according to a study published online September 8 in the *Annals of Internal Medicine*.

"Although the vaccine is highly efficacious at that age, the incidence of both [herpes zoster and postherpetic neuralgia] is low, and vaccine efficacy probably decreases to zero over a period of 10 to 12 years. Thus, by the age at which [herpes zoster] incidence increases rapidly, there seems to be no residual effect," the authors explain.

The findings support the decision of the Advisory Committee on Immunization Practices to recommend routine herpes zoster immunization for individuals who are at least 60 years old, although the vaccine is licensed for use in adults aged 50 years and older.

To estimate the cost-effectiveness of the vaccine vs no vaccination in 50-year-old immunocompetent adults, Phuc Le, PhD, MPH, from the Cleveland Clinic Medicine Institute's Center for Value-Based Care Research in Ohio, and colleagues updated a previously published Markov decision model using recently published data on vaccine efficacy and persistence.

The revised model estimated an incremental cost-effectiveness ratio of more than \$300,000 per quality-adjusted life-year for use of the vaccine in 50-year-old adults in the United States, which is more than three times the amount generally considered reasonable, the authors write. The robustness of the findings was confirmed through deterministic and probabilistic sensitivity analyses.

Because women have higher rates of herpes zoster and postherpetic neuralgia, the vaccine is more cost-effective in women, but it still does not approach accepted thresholds for good value, the authors write. To produce an incremental cost-effectiveness ratio below \$100,000 per quality-adjusted life-year, the cost of the vaccine would have to be reduced to a price far below what is currently charged, they explain.

"At current prices, affluent patients might still choose to be vaccinated before age 60 years, but congruent with the recommendation of the Advisory Committee on Immunization Practices, our cost-effectiveness results do not support universal vaccination for this age group," the

authors conclude. They acknowledge, however, that the findings are limited by the lack of substantial long-term effectiveness data for herpes zoster vaccination in 50-year-old adults. As a result, many of the model parameters were based on data from studies of individuals aged 60 years or older.

At this time, the Advisory Committee on Immunization Practices recommends a single dose of zoster vaccine for adults 60 years old or older, whether or not the patient reported a prior episode of shingles. Persons with chronic medical conditions may be vaccinated unless a contraindication or precaution exists for their condition.

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