

# herpes zoster vaccine

NEW DRUG

## Poorly effective in those who need it most

### Abstract

- The results of a clinical trial suggest that zoster vaccination (Zostavax<sup>o</sup>, Sanofi Pasteur MSD) of 1000 healthy persons aged 60 years or over prevents approximately one case of postherpetic neuralgia each year over the next 3 years. Vaccination is less effective in persons over 70 years of age.
- The results of another clinical trial suggest that vaccination of 1000 healthy persons aged 50 to 59 years prevents about 5 cases of herpes zoster over the following year. The impact on the frequency of postherpetic neuralgia is not known.
- The vaccine might not be protective in persons who subsequently become immunocompromised.

● In the trial in persons aged 50 years or older, 50% of vaccinees had mild local adverse effects. It should be noted that the protocol excluded immunocompromised patients, in whom the live vaccine virus could potentially cause clinically significant infection.

● In one study, the immune response to the vaccine was lower after simultaneous immunisation with a 23-valent pneumococcal polysaccharide vaccine.

● This live zoster vaccine is contraindicated in immunocompromised individuals, yet they are at highest risk of severe zoster.

● In practice, zoster vaccination is not sufficiently effective in the elderly to justify its widespread use.

### NOTHING NEW



Vaccination of the elderly against zoster has a modest preventive effect, but apparently not in those at highest risk (age over 80 years, onset of immunosuppression). The duration of clinical protection conferred by the vaccine is not known.

*Rev Prescrire* 2012; 32 (341): 178.



In response to our request for information, Sanofi Pasteur MSD provided detailed information including unpublished data and packaging items.



### COMPARE BEFORE DECIDING

The incidence of herpes zoster and its complications increases with age, and prevention is mainly a concern for adults over 60 years of age (1). The goal of prevention is to reduce the incidence of severe forms of the disease (especially ophthalmic zoster) and the incidence of postherpetic neuralgia, which is more severe after the age 70.

**No standard treatment.** Zostavax<sup>o</sup> is the first vaccine to be licensed in the European Union for the prevention of zoster in the elderly. There is no preventive drug treatment for zoster.

In patients with acute herpes zoster, antiviral drugs administered within 3 days after the appearance of zoster skin lesions can reduce the duration, but not the incidence, of postherpetic neuralgia. In persons over 70 years of age, the only population in which the use of antiviral therapy appears justified, oral *valaciclovir* taken 1 to 3 times daily for one week is the first-choice treatment (2).

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1- Prescrire Rédaction "Le zona. Première partie. Quelques formes graves chez les patients très âgés ou immunodéprimés" *Rev Prescrire* 2007; 27 (283): 365-371.

2- Prescrire Rédaction "Idées-forces Prescrire. Douleurs post-zostériennes: prévention" April 2010. [www.prescrire.org](http://www.prescrire.org); 2 pages.

### ZOSTAVAX<sup>o</sup>

Powder + solvent for suspension for SC injection

- minimum of **19 400 PFU** of live attenuated varicella-zoster virus (Oka/Merck strain produced in MRC-5 human diploid cells) (a)

■ **Indication:** "prevention of herpes zoster ("zoster" or shingles) and herpes zoster-related post-herpetic neuralgia (PHN) (...) in individuals 50 years of age or older". [EU marketing authorisation; centralised procedure]

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a- One method for titrating viruses is based on their cytopathic effect on cultured cells: when a virus suspension is seeded on a cell monolayer prepared in a Petri dish or on an agar substrate, the cytopathic effect creates spots ("plaques") of cytolysis that become visible to the naked eye after an incubation period that depends on the technique and the virus. The number of "plaque-forming units" (PFU) reflects the concentration of viable viral particles in the initial suspension.