Shingles vaccine hesitancy and post-herpetic neuralgia



About half of us who live to the age of 85 will develop shingles (herpes zoster), and it is becoming more common.¹ In some people, especially if they are older, after shingles clears up they are left with pain that may be severe enough to really affect their quality of life. This is why the introduction of two vaccines to prevent shingles is so important. GPs are giving everyone in their 70s these vaccines. If you are in this age group and have not been offered a vaccine, ask your GP about it.

What is shingles?

The varicella zoster virus causes chickenpox. If you have had chickenpox, the virus can stay inactive in your nerve cells. Shingles begins when the virus becomes active again and spreads. This may damage the nerve and can cause intense inflammation as the reactivated virus spreads along a nerve to the skin.²

Shingles causes an area of small blisters at the part of the body where the infected nerve is. The infection may be mild and heal in two to three weeks in healthy young adults. However, in people over the age of 50 and those with a weakened immune system (for example, people on steroids or cancer patients) problems are more likely to develop, such as zoster ophthalmicus (shingles in the eye, which can result in blindness).² Another complication of shingles is post-herpetic neuralgia (PHN), which is neuropathic pain (pain caused by damaged nerves). This can last for at least three months after the shingles rash appears.

You are more likely to develop post-herpetic neuralgia if you:

- are older (people over 50 are 15 times more likely to get it than those under 50);
- have another health issue, such as diabetes;
- are taking medications that weaken the immune system, such as steroids and other immunosuppressants which may be used to treat cancer or rheumatoid disease or used after an organ transplant;
- have an injury, which can reactivate the virus and cause a shingles rash at the site of the injury; or
- are suffering from stress.

Treating post-herpetic neuralgia is difficult. Although there are various treatments, most patients with severe post-herpetic neuralgia are never fully without symptoms.³ For this reason, the shingles

vaccine appears to be a crucial step in preventing both shingles and post-herpetic neuralgia in older adults.

The Vaccine

In 2006, an important study showed us that a single dose of a shingles vaccine (known as Zostavax or ZVL) reduced the number of cases of shingles by 51.3% and the severity of the disease by 61%. This has helped reduce the national 'burden of illness' (physical, emotional and social problems caused by illness).⁴ The vaccine also reduced the number of cases of post-herpetic neuralgia by 66.5% in people aged 60 and above. The only frequent side effect was usually a mild reaction at the site of the injection (for example pain, redness, swelling and itching). Based on this study, the vaccine was licensed for the prevention of shingles and post-herpetic neuralgia in people aged 50 and above.

Studies on the vaccine

A recent study in California confirmed these results.⁵ From 2007 to 2016, half a million people over the age of 50 had the vaccine and it was found to be effective to a similar degree in all age groups over 50.

UK vaccine programme

The shingles vaccine was approved in the UK in 2013 and a vaccination programme was introduced that year for adults aged 70 to 80. Over the three years of the programme (2013 to 2016), cases of shingles fell by 35% and cases of post-herpetic neuralgia by 50%. If these results were reproduced in the 5.5 million people in the UK eligible for the vaccine, there would be 17,000 fewer episodes of shingles and 3,300 fewer episodes of post-herpetic neuralgia.

In 2013, 62% of those eligible had had the vaccine, but by August 2016 this had reduced to 55%.⁶

Vaccine hesitancy

So, with proof of how effective the shingles vaccine is, why are people who are eligible for the vaccine hesitating about getting vaccinated? Safety concerns may be a factor, but the vaccine has now been safely used in millions of people. Public health is all about preventing illness before it occurs, but people often don't notice they are unwell or don't take action until it's too late. Spreading the word about the public-health benefits of this vaccine will be important to encourage more people to get vaccinated.

A survey of UK patients showed they were more likely to get the vaccine if they:

- had been offered it by their GP or nurse;
- were advised to take it by people they know; and
- felt the vaccine was more accessible.⁷

If you are in your 70s and have not yet been offered the Zostavax injection, ask your GP for it.

A new vaccine

For the few people who are not suited to the Zostavax vaccine, there is a new vaccine. This two-dose vaccine, known as Shingrix or ZSV, has a consistent success rate of 97% (and is just as effective in all age groups over 50 years).¹ The success rate is better than Zostavax and does not reduce with increasing age, as can happen with Zostavax.⁸

'Studies show that Shingrix is safe. You are likely to have temporary side effects from getting the injection such as a sore arm for 2 to 3 days. Guillain-Barré syndrome (GBS), a serious nervous system disorder, has been reported very rarely after Shingrix. However, there is also a very small increased risk of GBS after having shingles.

'The advantage of Shingrix is that immunity remains high throughout the 7 years following vaccination, whereas it greatly diminishes within 4-5 years with the Zostavax, which has not been available for use in the United States since November 2020.' (Centres for Disease Control and Prevention, 2022)

Zostavax is not given to people with weakened immunity, who are at the highest risk of developing shingles (such as people undergoing bone marrow transplants, people with HIV, or people receiving high doses of immunosuppressants). However, these people can be given the new Shingrix vaccine. A recent study of this new vaccine in Italy estimated it would bring improved protection from shingles and post-herpetic neuralgia compared with the current Zostavax vaccine. This would result in an estimated $\notin 12.4$ million reduction in the economic burden for the national healthcare and social systems in Italy.⁹

The Shingrix vaccine is licensed in the EU and has been approved for use in the NHS since 1 September 2021. Public Health England recommend that GPs should offer the Shingrix vaccine to all those who are eligible for the shingles vaccination but cannot have the Zostavax vaccine because of other diseases or treatments.¹⁰ The introduction of this new vaccine highlights the great benefits of having either of the shingles vaccines to reduce cases of both shingles and post-herpetic neuralgia and the significant impact they can have.

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