Public Health England

Protecting and improving the nation's health

Vaccination against shingles (Herpes Zoster)

November 2019

Key messages

- shingles can lead to a severe painful illness in older people that can persist for several months or even years
- the severity of the illness increases with age and older people aged 70 years and over are at an increased risk
- over 50,000 cases of shingles occur in people aged 70 years and over each year in England and Wales with approximately 50 cases resulting in death
- shingles vaccine is now offered routinely to individuals aged 70 years to reduce the incidence and severity of shingles and shingles related complications in older people

It is important that healthcare professionals encourage and offer vaccination to all eligible patients

Shingles infection

•shingles is a viral infection of the nerve cells and surrounding skin

•after a person recovers from chickenpox infection (caused by the varicella zoster virus), the virus remains dormant in the nerve cells and can reactivate at a later stage when the immune system is weakened

•reactivation of the dormant virus leads to the clinical manifestation of shingles

•reactivation can be associated with older age, malignancy, immunosuppressant therapy or HIV infection

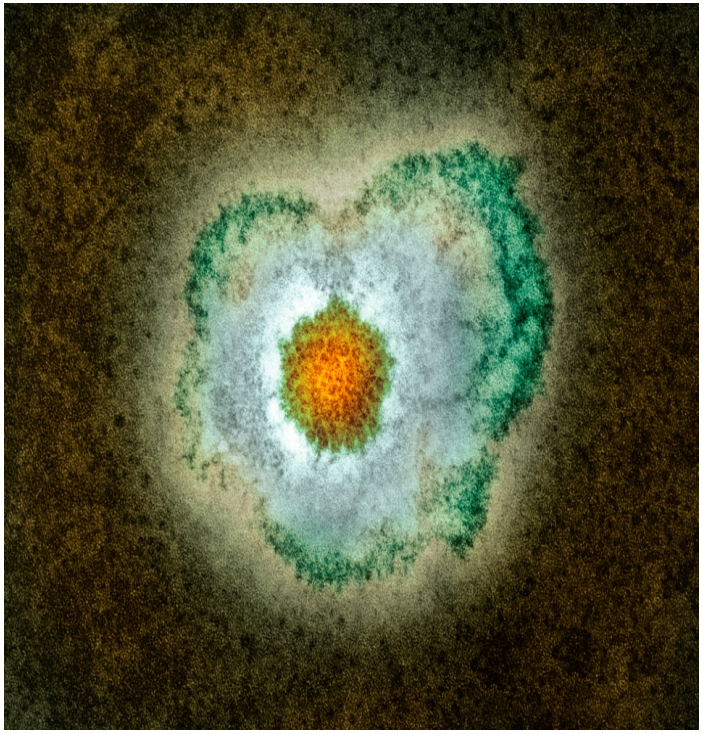

Image courtesy of PHE/SPL

Clinical presentation of shingles

Prodromal phase

The first signs of shingles may include

- abnormal skin sensations and pain in the affected area of skin
- headache
- feeling generally unwell
- photophobia
- malaise
- fever (although this is less common)

A prodromal illness is experienced by 80% of individuals with shingles and can last up to 72 hours before the rash appears

Clinical presentation of shingles (cont'd)

Acute stage

- a rash of fluid filled blisters develops after a few days and commonly occurs either on one side of the face or body, usually within the distribution of a dermatome (an area of skin that is supplied by a single nerve)
- the rash often causes intense pain and itching and a tingling, pricking or numb sensation in the area of the affected nerve
- the rash forms blisters that typically scab over in 7-10 days and this eventually clears within 2-4 weeks
- in individuals with weakened immune systems, a more disseminated rash covering multiple dermatomes may occur and this may appear similar to the chickenpox rash

Possible complications of shingles

Complications are more likely in adults aged over 50 years, with the severity of the illness increasing with age.

The **most common** complications are

•post herpetic neuralgia (PHN)

•secondary bacterial skin infections

Other less common complications can include

•ophthalmic zoster (leading to keratitis, corneal ulceration, conjunctivitis, retinitis, optic neuritis and/or glaucoma)

•peripheral motor neuropathy

In severe cases, shingles can lead to hospitalisation and death

Post Herpetic Neuralgia (PHN)

Post herpetic neuralgia (PHN) is a common complication of shingles in older adults:

•PHN is a pain at the rash site that persists for, or appears more than 90 days after the onset of the shingles rash

•on average, PHN lasts from 3 to 6 months but can persist for longer

•severity of pain can vary and may be constant, intermittent or triggered by stimulation of affected area such as a breeze on the face

•the pain may be a burning, itching, stabbing or aching pain, which is extremely sensitive to touch and is not generally relieved by common painkillers

•PHN is more likely to develop, and is more severe, in people over the age of 50, with one third of sufferers over the age of 80 experiencing intense pain

Infectious period

- a person with shingles is only infectious when the rash is present and fluid filled vesicles are present
- a person is **not** infectious before the rash is present **or** when the rash has crusted

Shingles is less infectious than chickenpox and covering the rash will greatly reduce the risk of exposure to those non-immune to chickenpox.

Transmission

- shingles can not be transmitted from one person to another
- a person exposed to shingles will not develop shingles
- a person exposed to chickenpox will not develop shingles
- however, a person who has not had chickenpox previously may develop chickenpox as a result of exposure to the shingles virus through direct contact with the fluid filled blisters
- the varicella virus that causes shingles (herpes zoster) is the same virus that causes chickenpox (varicella zoster)

Shingles is not spread through coughing, sneezing or casual contact

Incidence of shingles

•over 50,000 cases of shingles occur in people aged 70 years and above each year in England and Wales

•of these,14,000 develop PHN which is a very painful and long lasting complication of shingles infection

•1,400 cases of shingles result in hospitalisation

•1 in 1,000 cases of shingles in people aged 70 years and over are estimated to result in death

•The risk of shingles is higher in individuals with lupus, rheumatoid arthritis, diabetes and granulomatosis with polyangiitis (an auto immune disease leading to small vessel vasculitis)

The national shingles immunisation programme

- The national shingles immunisation programme began on 1 September 2013
- From 1st September 2019 anyone aged 70 to 80 will be eligible.
- Patients remain eligible until their 80th birthday.
- Any individual who reaches their 80th birthday is no longer eligible for the vaccination due to the reducing efficacy of the vaccine as age increases

Shingles vaccine coverage

- **There has been a year on year decline in coverage** in both the routine (70-year-old) and catch-up (78-year-old) cohorts

CCG name	70th birthday in Quarters 1,2, 3, 4 2018/19 (dobs 1/4/48 to 31/03/49)	78th birthday in Quarters 1,2, 3, 4 2018/19 (dobs 1/4/40 to 31/03/41)
NHS Barnsley CCG	**31.0**	**29.7**
NHS Bassetlaw CCG	47.0	55.3
NHS Doncaster CCG	28.5	25.2
NHS Rotherham CCG	26.5	24.0
NHS Sheffield CCG	30.0	25.4
ENGLAND	31.9	32.8

Variance is seen in Barnsley practices coverage ranging from 0% to 77.1% for those aged 70 years and 0% to 69.3% for those aged 78 years in QTR 4 2018/19.

Vaccine efficacy

A one dose schedule of Zostavax was assessed in clinical trials using 17,775 adults aged 70 years and over

The vaccine reduced the incidence of shingles by 38% and provided protection for at least 5 years

For those vaccinated but who later developed shingles, the vaccine

- **significantly** reduced the burden of illness by **55%**
- **significantly** reduced the incidence of PHN by **66.8%**

Contraindications and precautions

Zostavax is a live vaccine

it is essential to check that the recipient has no contraindications to receiving this vaccine

•Immunisation of individuals who are acutely unwell should be postponed until they have recovered

•the decision to administer Zostavax to immunosuppressed individuals should be based on a clinical risk assessment

•if the individual is under highly specialist care and it is not possible to obtain full information on that individual's treatment history, then vaccination should not proceed until the advice of the specialist or a local immunologist has been sought

•if primary healthcare professionals administering Zostavax have concerns about the nature of their patient's prescribed therapies (including biologicals) or their degree of immunosuppression, they should contact the relevant specialist for advice

Maximising vaccine uptake

Every effort should be made by healthcare professionals to maximise the uptake of the shingles vaccine

•All those advising on or administering the vaccine should be able to provide **clear, concise** and **accurate** information to individuals eligible to receive shingles vaccine

•Although Zostavax can be administered at the same time as the flu vaccine, it should be offered as soon as an individual becomes eligible

•Shingles vaccine should be ordered regularly (for example at the same time as other routine vaccines). Ideally, practices should have sufficient vaccine available to offer the vaccine on an opportunistic basis e.g. when an eligible patient presents for another reason

Ideas to improve uptake

- Review vaccine coverage from the previous year and plan early with a target data for completion of this years programme
- Ensure that all staff advising on or administering the vaccine attend training and share good practice with colleagues
- Identify a named person to perform monthly and quarterly searches of eligible patients and ensure active follow up of them
- Use alternative methods of communication as required including text messages and phone calls (Telephone calls more costly but can be effective)
- Ensure flexibility with the delivery of the programme: offer shingles vaccine all year round to eligible patients, not just during flu season, offer home visits for the housebound and ensure the vaccine is available during chronic disease clinics, flu clinics and opportunistically during general appointments

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- shingles vaccine is now offered routinely to individuals aged 70 to 80 years to reduce the incidence and severity of shingles and shingles related complications in older people

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Resources

- Shingles immunisation programme https://www.gov.uk/government/collections/shingles-vaccination-programme
- PHE Immunisation against infectious disease (the Green Book) Shingles (herpes zoster) chapter 28a https://www.gov.uk/government/collections/immunisation-against-infectious-disease-the-green-book
- PHE Shingles vaccination: guidance for healthcare professionals https://www.gov.uk/government/publications/shingles-vaccination-guidance-for-healthcare-professionals