Shingles:
Good Practice Guide

Advice and guidance on how to improve shingles vaccination uptake
**Shingles**

Shingles, also known as herpes zoster, is caused by the reactivation of a latent varicella zoster virus (VZV) infection. Primary VZV infection manifests as chickenpox, a highly contagious condition that is characterised by an itchy, vesicular rash. Following this initial infection, the virus enters the dorsal root ganglia and remains there as a permanent, dormant infection. Reactivation of this latent VZV infection, generally occurring decades later, causes shingles.

**Incidence**

Approximately 1 in 4 people will develop shingles during their lifetime. Both the incidence and the severity of the condition increases with age. Older individuals are also more likely to develop secondary complications, such as bacterial skin infections and post-herpetic neuralgia (intractable pain).

**Common Symptoms**

The predominant symptom of shingles is pain, often with associated paraesthesia (pricking, tingling or numbness). This is followed by the development of a painful rash, similar in appearance to that of chickenpox, which forms itchy, fluid-filled blisters that usually persist for two to four weeks. These disturbances occur in a unilateral dermatomal distribution, corresponding to the ganglia in which the viral infection is located.

Other symptoms may include headache, photophobia, malaise and fever.
Post-Herpetic Neuralgia

Post-herpetic neuralgia (PHN) is persistent pain at the site of the shingles infection that extends beyond the period of the rash. It usually lasts from three to six months, but can persist for longer. PHN occurs in approximately 1 in 5 people with shingles, and the risk increases with age (see Table 1). It is estimated that 14,000 cases of shingles result in PHN each year.

PHN occurs when the reactivated virus causes damage to nerve fibres. The resultant intractable pain can severely limit the ability to carry out daily activities, and PHN is therefore a debilitating condition that can significantly impair quality of life. PHN does not respond to painkillers such as paracetamol or ibuprofen, so is extremely difficult to treat and may result in hospitalisation. There is no cure.

The most effective method of preventing PHN is the shingles vaccination.

Table 1: Estimated percentage of immunocompetent shingles patients developing PHN by age group in England and Wales.

<table>
<thead>
<tr>
<th>Age group</th>
<th>60-64 years</th>
<th>65-69 years</th>
<th>70-74 years</th>
<th>75-79 years</th>
<th>80-84 years</th>
<th>85+ years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proportion developing PHN after 90 days</td>
<td>9%</td>
<td>11%</td>
<td>15%</td>
<td>20%</td>
<td>27%</td>
<td>52%</td>
</tr>
</tbody>
</table>

Table taken from the Green Book Chapter 28a; data from van Hoek et al., 2009. Population data - 2007.
1. **How is shingles different to chickenpox?**

   Although both shingles and chickenpox are caused by VZV, they are two different conditions. The main symptom of chickenpox, which usually occurs in children, is an itchy rash. Shingles, more commonly occurring within the older population, is predominantly characterised by pain.

2. **Is shingles contagious?**

   It is not possible to catch shingles directly from someone else with shingles. However, the fluid-filled blisters contain live virus, and individuals who are exposed to this infectious fluid may develop chickenpox. If the VZV later reactivates, they will develop shingles.

3. **What is ophthalmic shingles?**

   If the reactivation of VZV occurs in the ophthalmic nerve, shingles can affect the eyes and lead to problems with vision. This occurs in 10-20% of shingles cases.

4. **Is there a cure?**

   There is no cure for shingles. Painkilling medication can be used to relieve the symptoms until the condition resolves (usually within 4 weeks). Associated secondary conditions can prove extremely difficult to treat and may lead to long-term complications.
The Shingles Vaccination

Zostavax® is the only shingles vaccine used in the UK. A single dose has been shown to reduce the incidence of shingles by 38%\(^1\). If shingles does develop, the symptom severity is greatly reduced, and the incidence of PHN drops by 67%.

The Vaccination Programme

All eligible patients should be offered the shingles vaccination by their GP. Running a **call-recall** service has been shown to greatly improve uptake.

Vaccine Ordering

Zostavax is available to order through ImmForm. Healthcare professionals should refer to the ImmForm website on a regular basis for up-to-date information on vaccine availability.

Please note each dose of Zostavax costs the NHS **£99.96**

Please ensure that you do not overstock as this can lead to excessive wastage. It is recommended that orders should be limited to a maximum of 5 doses.

Vaccine Administration

Zostavax® is licensed for administration via intramuscular (recommended) or subcutaneous routes.

The vaccine is supplied as a vial and a pre-filled syringe for reconstitution. Once reconstituted, the mixture should form a translucent, off-white liquid that should be administered immediately. Each pack contains a single dose.

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Who is Eligible?

Patients born **on or after 02/09/1942** are part of the routine programme, and will become eligible as soon as they turn **70**.

Patients born **before 02/09/1942** are part of the catch-up programme, and will become eligible as soon as they turn **78**.

Please note that patients are now eligible from the date they turn the required age (70 or 78), rather than on 1 September.

Patients then remain eligible until their 80th birthday.

Maximising Uptake

1. **Offer a call-recall service**

   It is considered good practice to offer the shingles vaccination on a call-recall basis. Ensure that all eligible patients are sent a letter inviting them to have their vaccination. Follow up any non-responders with further letters and/or telephone calls. Now that the eligibility criteria has changed, practices could invite all those that became eligible throughout the previous month for vaccination on an ongoing basis.

2. **Phone your patients**

   A personal telephone call is often all it takes to encourage a patient to book an immunisation appointment.

3. **Send text / email appointment reminders**

   Sending text or email reminders is a cheap and easy method of improving appointment attendance. For patients who do not have email accounts or use mobile phones, letters and telephone calls should be used.
Maximising Uptake

4. Send patients a NHS shingles information leaflet

Send a NHS information leaflet alongside the invitation letter to ensure that patients are given sufficient information to reach an informed decision about shingles vaccination.

5. Publicise the programme

Some examples of easy publicity approaches include:
   a) Display bunting, leaflets, and posters around the surgery
   b) Add messages to the waiting room TV screen
   c) Advertise on the practice website
   d) Add a message to the back of prescription counterfoils
   e) Publicise in patient newsletters

6. Use pop-up alerts for opportunistic appointments

Set up your IT system to identify all eligible patients and generate pop-up alerts on their patient record, so that staff are reminded to offer the vaccination opportunistically each time the patient’s record is opened. Ensure that clinicians are trained to monitor these alerts so that no patients are missed.

If your system is not able to do this, external software can be purchased. Alternatively, notifications can be set up manually.
How to Run the Shingles Programme

The shingles programme can be approached in various ways. The following methods have proven effective for different practices.

1. **Offer shingles prior to the start of the flu season**

Some practices have found that it is easiest to hold all shingles clinics before the flu season begins. If taking this approach:
   a) Send out invitation letters to patients in August
   b) Send reminder letters / texts / emails in early September
   c) Run shingles clinics throughout September
   d) Follow up non-responders and DNAs (by letter or phone)
   e) Run catch-up clinics in the Spring (post-flu season)

2. **Offer shingles alongside seasonal flu and pneumococcal vaccine**

Shingles vaccinations can also be offered at flu clinics, reducing the need for patients to attend two separate appointments. However, an alternative option must be provided for patients who do not wish to have the flu vaccination. In addition, shingles can be offered all year round and does not have to be limited to the flu season.

3. **Offer shingles in routine appointments**

Another option is to offer shingles vaccinations in standard appointments, with a GP or Practice Nurse, throughout the year. This can be done in addition to running targeted shingles clinics.
4. Stagger the appointments

If opting to offer shingles vaccinations in general appointments, it may be more manageable to stagger sending out invites by separating eligible patients into cohorts based on their dates of birth. Run monthly searches to determine which patients have become eligible that month, and send letters to each cohort inviting them to book an appointment. This approach ensures that appointments will be spread out and can make the programme easier to cope with.

5. Offer out of hours clinics / appointments

Ensure that the service is accessible to everyone by offering clinics or appointments in the evenings and at the weekend. These can be combined with flu clinics if more cost-effective.

6. Target care homes

Run immunisation clinics at any nursing homes that your practice serves. Not only will this ensure that these harder-to-reach patients are offered their shingles vaccination, but it also provides an easy opportunity to administer the vaccine to a large number of eligible patients.
For additional information on shingles and Zostavax, please refer to Chapter 28a of the Green Book, at: https://www.gov.uk/government/publications/shingles-herpes-zoster-the-green-book-chapter-28a