Comparison of chickenpox and shingles (varicella and herpes zoster)

The first infection with the varicella-zoster virus causes chickenpox. After recovery, the virus remains latent (sleeping) in spinal nerves and may reactivate years later, causing shingles. Either Varilrix® or Varivax® can be used to prevent chickenpox. Zostavax® is used to reduce the risk of virus reactivation and shingles. The following table compares chickenpox with shingles and identifies the correct vaccine to use.

<table>
<thead>
<tr>
<th>Chickenpox (varicella)</th>
<th>Shingles (herpes zoster)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Disease</strong></td>
<td><strong>Disease</strong></td>
</tr>
<tr>
<td>Primary infection with varicella-zoster virus</td>
<td>Secondary infection from reactivation of latent varicella-zoster virus</td>
</tr>
<tr>
<td>Systemic</td>
<td>Only occurs when there has been a prior varicella zoster-virus infection</td>
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<tr>
<td>Usually widespread rash over trunk and face with some on the arms and legs</td>
<td>Localised</td>
</tr>
<tr>
<td>Usually children</td>
<td>Rash occurs in the area the infected nerve supplies, typically on the back/chest or face</td>
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<tr>
<td>Contact with infected droplets of saliva in the air initially, then contact with liquid from rash blisters may cause chickenpox</td>
<td>Usually adults aged 50 years or older</td>
</tr>
<tr>
<td>Infectious from 1–2 days before the rash appears until after the rash blisters have dried up</td>
<td>Contact with liquid from rash blisters may cause chickenpox</td>
</tr>
</tbody>
</table>
| Signs and symptoms  
- Mild fever, loss of appetite, headache, tiredness  
- Itchy rash that becomes blisters  
- Varicella zoster-virus establishes latent infection in dorsal root ganglia and cranial nerves | Infectious once the rash becomes blisters until after the rash blisters have dried up |
| Signs and symptoms  
- Altered sensation, e.g. tingling, burning, numbness, where the rash will appear  
- Mild fever, tiredness  
- Unilateral, localised rash that becomes blisters  
- Nerve pain |

**Prevention**

Varilrix® or Varivax® (these two vaccines are interchangeable)

- Only used to prevent primary varicella (chickenpox) infection
- Live, attenuated vaccine
- Licensed from 9 months and 12 months of age respectively
- Dose  
  - Infants aged 9 months to under 12 months of age: two doses with the second dose at/after 12 months of age  
  - Children aged 12 months to under 13 years: the parent can choose whether to give either one or two doses. One dose gives good protection, two doses give optimal protection  
  - Individuals aged 13 years to under 50 years: two doses
- Vaccine efficacy  
  - Children under 13 years: against all chickenpox, 70–90% protected after one dose; 97–99% protected after two doses  
  - Individuals aged 13 years or older: against moderate to severe chickenpox, 79–91% protected after two doses

Zostavax®

- Only used to reduce the risk of secondary (herpes zoster/shingles) infection
- Live, attenuated vaccine
- 10 and 14 times stronger than Varilrix® and Varivax® vaccines respectively
- Licensed from 50 years of age
- Can be given irrespective of a history of varicella or herpes zoster
- Do not test for varicella antibodies before or after giving Zostavax®
- Dose  
  - Adults aged 50 years or older: one dose
- Vaccine efficacy  
  - Individuals aged 50–59 years: against shingles 70%  
  - Individuals aged 60–69 years: against shingles 64%  
  - Individuals aged 70–79 years: against shingles 41%  
  - Individuals aged 80 years or older: against shingles 18%

**References**