Human varicella-zoster immunoglobulin (VZIG)

Indications

VZIG prophylaxis is recommended for individuals who fulfil **all** of the following three criteria:

- Significant exposure to chickenpox (varicella) or shingles (zoster) during the infectious period
- At increased risk of severe chickenpox i.e. neonates and pregnant women exposed in the first 20 weeks of pregnancy, ie up to and including 20+0 weeks.
- No antibodies to varicella-zoster virus (VZV). Urgent VZV antibody testing can be performed within 24 hours

Public Health England guidance has changed for immunosuppressed individuals and pregnant women exposed after 20 weeks – see link https://www.gov.uk/government/publications/varicella-zoster-immunoglobulin

Type of VZV infection in index case:

VZIG should be issued only for those in contact with chickenpox, or those in contact with the following:

- Disseminated shingles
- Immune-competent individuals with exposed shingles lesions (e.g. ophthalmic shingles)
- Immune-suppressed individuals with localised shingles on any part of the body in whom viral shedding may be greater

Timing of Exposure: VZIG should be offered to:

- Contacts where there is continuous exposure to a case of chickenpox or shingles (e.g. household member, nursery or care worker)
- Contacts where there has been more than one exposure to a case of chickenpox or shingles
- Contacts with a single exposure to a case of chickenpox during the infectious period from 48 hours before onset of rash until the lesions have crusted over
- Contacts with a single exposure to a case of shingles

Closeness and duration of contact:

In addition to household contacts, the following require VZIG prophylaxis:

- Contacts in the same small room (e.g. in a house or classroom or a 2 to 4 bed hospital bay) for a significant period of time (15 minutes or more)
- Face to face contact, for example while having a conversation
- Immune-suppressed contacts on large open wards, where air-borne transmission at a distance has occasionally been reported, particularly in paediatric wards where the degree of contact may be difficult to define

Assessment of susceptibility

The administration of VZIG is unlikely to confer any additional benefit for patients who already have varicella antibody (VZV IgG) and therefore VZIG is not recommended for individuals with adequate levels of VZV IgG. Assessment of susceptibility will depend on the history of previous infection or vaccination

Dosage of VZIG for prophylaxis

0 – 5 Years	250mg
6 – 10 Years	500mg
11 – 14 Years	750mg
15 years and older	1000mg

By slow intramuscular injection

When a large-volume injection such as VZIG is to be given, it should be administered deep into a large muscle mass. If more than 3ml is to be given to young children and infants, or more than 5ml to older children and adults, the immunoglobulin should be divided into smaller amounts and given into different sites. The upper outer quadrant of the buttock can be used for varicella zoster immunoglobulin injection.

Individuals for whom intramuscular injections are contraindicated

Contacts with bleeding disorders who cannot be given an intramuscular injection should be given intravenous human normal immunoglobulin (IVIG) at a dose of 0.2g per kg body weight (i.e. 4ml/kg for a 5% solution) instead. This will produce serum VZV antibody levels equivalent to those achieved with VZIG.

Use of antivirals for prophylaxis

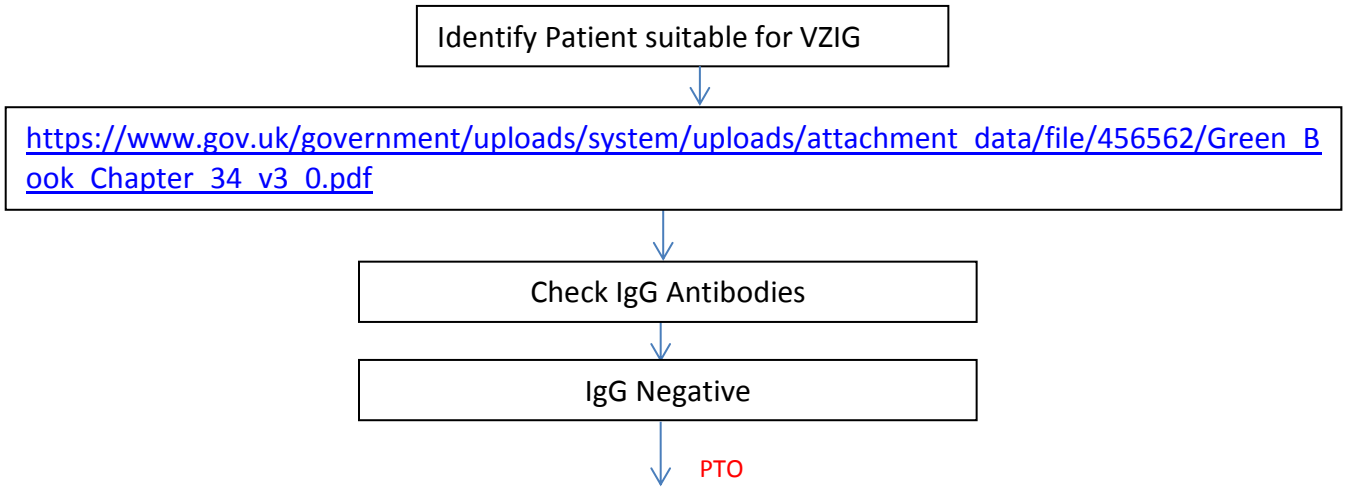
See - Updated guidelines on post exposure prophylaxis (PEP) for varicella/shingles
June 2019 https://www.gov.uk/government/publications/varicella-zoster-immunoglobulin

Treatment of chickenpox in immunosuppressed individuals, neonates and pregnant women

There is no evidence that VZIG is effective in the treatment of disease. Prompt treatment with appropriate drugs (i.e. aciclovir, valaciclovir, famciclovir) should be commenced at the first signs of illness in individuals with a clinical condition, which increases the risk of severe varicella.

Pathway

See link for more details https://www.gov.uk/government/publications/varicella-zoster-immunoglobulin/ordering-varicella-zoster-immunoglobulin-vzig-through-phe-colindale



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Complete the **Varicella-Zoster Immunoglobulin Clinical Record form (see link)** and email form to **PHE.RIGS@nhs.net**.
Ring RIgS team on **020 8327 6204** to clarify delivery

Deliver the VZIG to the address of the practice. To be given via an IM injection at the practice

VZIG should be administered within 10 days of contact or preferably within 7 days of contact for neonates.

The following essential information **MUST** be available. VZIG cannot be obtained without it and missing information could cause substantial delays.

- Reason for increased risk of severe chickenpox i.e. neonates or pregnant woman exposed before 20 weeks of pregnancy
- Patient details
- Date of contact
- Nature of contact (eg one off, or continuous as case is a member of the household)
- Date of onset of rash in the index case
- In the case of shingles where on the body the rash is
- Dates of recent live vaccinations

See PHE guidance for fuller details on above
https://www.gov.uk/government/publications/varicella-zoster-immunoglobulin

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