## Varicella Zoster Immune Globulin (Human)
### Biological Page

<table>
<thead>
<tr>
<th>Section 7:</th>
<th>Biological Product Information</th>
<th>Standard #: 07.351</th>
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<tbody>
<tr>
<td>Created by:</td>
<td>Province-wide Immunization Program Standards and Quality</td>
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<td>Approved by:</td>
<td>Province-wide Immunization Program, Standards and Quality</td>
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<tr>
<td>Approval Date:</td>
<td>March 1, 2013</td>
<td>Revised: August 1, 2020</td>
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<tr>
<th>Manufacturer</th>
<th>Emergent BioSolutions Inc.</th>
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<tr>
<td>Biological Classification</td>
<td>Passive: Immune Globulin</td>
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### VariZIG®

### Indications for Provincially Funded Vaccine

**Post-exposure:**
- In consultation with the Zone Medical Officer of Health (MOH) and/or Infectious Disease/Infection Control Specialist, VariZIG® should be considered based on the susceptibility to varicella, significant exposure, increased risk of severe varicella and contraindication for post-exposure varicella vaccine.
- VariZIG® is of maximal benefit if administered within 96 hours of the most recent significant exposure to varicella disease.
- If more than 96 hours but less than 10 days has elapsed since the last exposure VariZIG® may be used for the purpose of modifying the disease.
- VariZIG® should be considered for:
  - Susceptible pregnant women
  - Newborn infants of mothers who develop varicella disease during the 5 days before to 48 hours after delivery
  - Susceptible immunocompromised individuals with congenital or acquired immunodeficiency due to disease or treatment, including:
    - Individuals receiving high-dose systemic corticosteroid therapy for 2 weeks of longer (prednisone equivalent of 2 mg/kg or more per day OR 20 mg or more per day if weight is greater than 10 kg).
    - Susceptible HIV infected individuals who are severely immune suppressed (CD4 cell count less than 200 x 10^6/L or CD4 percentage less than 15%)
    - Hematopoietic stem cell transplant (HSCT) recipients should be considered susceptible prior to immunization and not on antiviral medication. Those who have received 2 doses of appropriately spaced varicella vaccine generally would not be considered susceptible.

### Notes:
- Susceptible individuals are those who do not have documented history of two valid doses of varicella-containing vaccine or laboratory evidence of immunity or laboratory confirmation of varicella disease.
- Individuals receiving replacement infusions of 400 mg/kg or more of intravenous immune globulin (IVIG) are considered protected and do not require VariZIG® if the last dose of IVIG was received within 3 weeks before varicella exposure.
### VariZIG®

- For management of significant varicella exposure in a neonatal or pediatric intensive care, consultation with the infectious disease/infection control specialist regarding the potential use of VariZIG® is advised. Hospitalized preterm infants exposed during the first few weeks of life may be candidates for VariZIG® as listed below:
  - If less than 28 weeks gestation or birth weight 1,000 g or less, regardless of maternal immunity.
  - If 28 or more weeks gestation and mother lacks evidence of immunity against varicella.

**Notes:**
- Subsequent exposure occurring more than 3 weeks after administration of VariZIG® would require additional doses of VariZIG® if the criteria for post-exposure still exist.
- VariZIG® is not available through Alberta Health Services (AHS) public health vaccine depots. Following zone specific process, the product is available to hospital blood banks/hospital lab/Transfusion Medicine Departments through Canadian Blood Services who will arrange for the release and delivery of VariZIG®.
- For further disease information refer to Public Health Notifiable Disease Management Guidelines – Varicella (Chickenpox) https://open.alberta.ca/publications/varicella-chickenpox

**Schedule**
- One dose given within 96 hours after exposure
- Additional doses of VariZIG® may be required if subsequent exposures occur more than 3 weeks after first dose.

**Preferred Use**
N/A

**Dose**
- 125 IU/10 kg body weight to maximum of 625 IU
- Minimum dose 125 IU

**Route**
IM

**Contraindications/Precautions**

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<th>Contraindications:</th>
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<td>Known hypersensitivity to any component of VariZIG®</td>
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<td>History of anaphylactic reaction to immune globulins</td>
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<td>IgA deficiency: Individuals with immunoglobulin A deficiency have the potential for developing IgA antibodies and could develop anaphylactic reactions to subsequent blood products (including immune globulin preparations) that contain IgA.</td>
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<tr>
<td>Known immunity to varicella zoster virus.</td>
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**Precautions:**
- Use with caution in clients with a history of prior systemic allergic reactions following administration of human immunoglobulin preparations.
- VariZIG® is made from human plasma. Products made from human plasma may contain infectious agents that can cause disease. Measures to prevent transmission of viral diseases from VariZIG® include screening plasma donors for prior exposure to certain viruses, testing for the presence of certain current viral infections and using manufacturing techniques to inactivate and/or remove certain viruses. Despite these measures, such products could still potentially transmit disease.
  - A signed Consent for Treatment/Procedure is required before administering immune globulin products: https://www.albertahealthservices.ca/frm-09741.pdf
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<tr>
<th><strong>Possible Reactions</strong></th>
<th><strong>VariZIG®</strong></th>
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| **Common:** | - Pain, bruising, and pruritus at the injection site  
- Headache, rash  
- Myalgia, rigors, fatigue, nausea and flushing |
| **Uncommon:** | - Mild fever and malaise |
| **Rare:** | - Anaphylaxis, allergic reaction  
- Urticaria and angioedema  
- As with any immunization, unexpected or unusual side effects can occur. Refer to the product monograph for more detailed information. |

**Pregnancy**
If indicated, VariZIG® should be given to susceptible pregnant women who have been exposed to varicella.

**Lactation**
Should be administered to susceptible breastfeeding women if indicated. It is not known if VariZIG® is excreted in breast milk.

**Composition**
Each vial contains:
- Approximately 125 IU anti-varicella zoster virus  
- 10% maltose  
- 0.03% polysorbate 80  
- less than 156 mg human immunoglobulin G
Contains no preservative

**Blood/Blood Products**
Made from pooled human plasma.

**Bovine/Porcine Products**
No bovine or porcine products are listed in the Product Monograph ingredients list.

**Latex**
There is no latex in the vaccine or the vaccine packaging.

**Interchangeability**
There is no other varicella zoster immune globulin (VZIG) product available for use.

**Administration with Other Products**
- Immunization with live virus vaccines (MMR and varicella) should be deferred for at least 5 months after administration of VariZIG®. VariZIG® cannot be given concurrently with live virus vaccines.  
- When it is necessary to administer VariZIG® within 2 weeks after receiving MMR or varicella vaccine, the vaccine should be repeated 5 months after the VariZIG® administration.

**Note:**
- For further information, see #03.110 Standard for Recommended Immunization Schedules.

**Appearance**
Following reconstitution, the product should be clear or slightly opalescent.

**Storage**
- Store VariZIG® at +2°C to +8°C. The product should be brought to room or body temperature immediately prior to use.  
- Discard any unused product.  
- Do not freeze.  
- Do not use beyond expiration date.  
- Store in original package when possible to protect from light.

**Vaccine Code**
VZIG
## VariZIG®

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<thead>
<tr>
<th><strong>Antigen Code</strong></th>
<th>VZIG</th>
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<tr>
<td><strong>Licensed for</strong></td>
<td>Persons of all ages.</td>
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<tr>
<td><strong>Note:</strong></td>
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### Related Resources:
- Varicella Immune Globulin Information Sheet

### References: