**HIGHLIGHTS OF PRESCRIBING INFORMATION**

These highlights do not include all the information needed to use BabyBIG (Betalokin Immune Globulin Intravenous Human (BIG-IV)) safely and effectively. See full prescribing information for BabyBIG (Betalokin Immune Globulin Intravenous Human (BIG-IV)) Lyophilized Powder for Reconstitution and Injection Initial U.S. Approval: 2003

**INDICATIONS AND USES**

**DOSAGE AND ADMINISTRATION**

**3. DOSAGE AND STRENGTHS**

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**5. WARNINGS AND PRECAUTIONS**

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**22. TREATMENT OF INFANT BOTULISM CAUSED BY TYPE A OR B**

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**26. BEGIN INFUSION SLOWLY. Administer BabyBIG intravenously at 0.5 mL per kg body weight per hour (25 mg/kg per hour). The rate can be increased to 1.0 mL per kg body weight (50 mg/kg per hour). DO NOT EXCEED THIS RATE OF INFUSION. Monitor vital signs continuously during infusion.**

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10 OVERTOXITY
Although limited data are available, clinical experience with other immunoglobulin preparations suggests that the major manifestations would be those related to volume overload.17,18

11 DESCRIPTION
BabyIGf, Biotulin Immune Globulin Intravenous (Human) (BfG-iG) is a solvent-detergent-treated, sterile, lyophilized powder of immunoglobulin (IgG), stabilized with 5% sucrose and 1% albumin. It contains no preservatives. The purified immunoglobulin is derived from pooled adult plasma from persons who were immunized with natural immunizing agents. Batch-to-batch variability for specific IgA and B antibodies is not selected for their high titer of neutralizing antibody against botulinum neurotoxin type A and B. All donors were tested and have found to be negative for antibodies against the human immunodeficiency virus and the hepatitis B and C viruses.

The pooled plasma was fractionated by cold ethanol precipitation of the proteins according to the Cochrane/Oncley method, modified by yield a product suitable for intravenous administration.19,20 Several steps in the manufacturing process have been validated for their ability to inactivate or remove viruses that may not have been detected in the Source Plasma.21-24

These include Cochrane-Oncley fractionation 1 through Supernatant B Fractionation that removes bound albumin, mannose-binding lectin (MBL) and two 25-kDa filters; and solvent/detergent viral inactivation. These viral reduction steps have been validated in a series of in vitro experiments and in vivo experiments to inactivate viruses and/or reduce Human Immunodeficiency Virus Type 1 (HIV-1) and the following model viruses: bovine viral diarrhea virus (BVDV) as a model for influenza viruses; mouse epsteini-russel virus (MERV) as a model for Hepatitis A virus; and parvovirus B19 as a model for Herpesvirus saimiri (SV40) to cover a wide range of physicochemical properties in the model viruses studied.

Total mean IgG, reductions range from 4.63 to greater than 16 log, as shown in the following table:

<table>
<thead>
<tr>
<th>Process Step</th>
<th>Reductions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial Neutralization</td>
<td>4.63 log</td>
</tr>
<tr>
<td>B19 Neutralization</td>
<td>&gt;16 log</td>
</tr>
<tr>
<td>BVDV Neutralization</td>
<td>&gt;16 log</td>
</tr>
</tbody>
</table>

Additional testing performed with bovine parvovirus (as a model for parovirus B19) showed a mean cumulative reduction factor of greater than 7.14 log, for Cochrane/Oncley Fractionation and Supernatant B Fractionation and/or Mouse Immunodeficiency Virus type 1 (Moloney-MuLV) and the following model viruses: mollivirus (Mol distress MIU) as a model for HIV-1 and HIV-2; parvovirus B19 as a model for Hepatitis B virus; and parovirus B19 as a model for Herpesvirus saimiri (SV40) to cover a wide range of physicochemical properties in the model viruses studied.

When reconstituted with Sterile Water for Injection (USP), each cubic centimeter (ml) of reconstitution contains approximately 50 mg immunoglobulin, primarily IgG, and trace amounts of IgA and IgM (50 to 500 micrograms); 0.1 mg of albumin; and approximately 20 µg of sodium. The reconstituted solution should appear colorless and transparent (see DOSAGE AND ADMINISTRATION for further information).

12 CLINICAL PHARMACOLOGY
BabyIGf contains IgG antibodies from the immunized donors who contributed to the plasma pool from which the product was derived. The titers of the antibodies in the reconstituted product are higher than 100,000 units per ml for type A toxin and 4.0 titer per ml for type B toxin. Anti-A type A and B antibodies have been defined by 110 of immunoglobulin, as well as botulinum toxin types A and B. This product is expected to provide the relevant antibodies at levels sufficient to neutralize the expected levels of circulating botulinum.

12.1 Mechanism of Action
BabyIGf contains antibodies specific for botulinum neurotoxin types A and B that bind to and neutralize the toxin itself. Anti-A type A and B is present.

12.2 Pharmacokinetics
Formal studies of pharmacokinetics have not been conducted with BabyIGf.

12.3 Pharmacological
For further information, seeBABYIGf clinical studies. This information is not intended to replace the use of immunophrophylactic regimens in high-risk populations.

14 CLINICAL STUDIES
Two clinical studies in infant botulinum were performed. (1) A adequately well-controlled study to evaluate the safety and efficacy of BabyIGf (120, and 250 an open label study to collect additional safety and confirm efficacy (25). In the adequate and well-controlled study, IgG was given in the first 3 days of hospital admission to 90 patients with laboratory-confirmed infant botulinum, has been shown to reduce toxic effects and to improve survival.

The half-life of injected BabyIGf has been shown to be approximately 28 days in infants and 15 days in adult intervention with existing data of other immunoglobulin preparations.12,13

<table>
<thead>
<tr>
<th>Time (Days)</th>
<th>IgG Levels (mg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>150</td>
</tr>
<tr>
<td>3</td>
<td>80</td>
</tr>
<tr>
<td>7</td>
<td>50</td>
</tr>
<tr>
<td>14</td>
<td>25</td>
</tr>
</tbody>
</table>

16 HOW SUPPLIED/STORAGE AND HANDLING
NDC: 68493-1100-100, 160 mg ± 2 mg hyophilized immunoglobulin single dose vial single-use packaging in a carton. Store at 2-8°C (36-46°F) for reconstitution.

3. Do not reconstitute BabyIGf within 2 hours.

4. Do not use beyond expiration date, and dispose unused product in accordance with local regulations.

17 PATIENT COUNSELING INFORMATION

1. Discuss the risks and benefits of BabyIGf with the patient’s legal guardian, including the possibility of adverse reactions, e.g., hyperammonemic crisis such as anaphylaxis, as well as acute meningitis, T1R, hemolytic, renal failure, and thrombosis (see WARNINGS AND PRECAUTIONS [5]).

2. Patient’s legal guardian may be present throughout the transfusion, may have been infected or exposed to human immunodeficiency virus in the absence of an infant with botulinum. J Clin Microbiol 1990; 27:13-15.

3. Risk: A, Serious; B, Moderate; C, Low; D, Minor. Transfusion-related acute lung injury after the infusion of IVIG. Transfusion 2001; 41: 264-268.

