Information for clinicians
Adult: Administration of Intravenous Immunoglobulins

This information is not for use without local review and endorsement.

Purpose of this document

This document provides guidance to facilities to develop operational administration procedures for all adult patients receiving Intravenous Immunoglobulins (IVIg). The information should be considered by relevant hospital committees (e.g. Blood Management and Drug and Therapeutics Committees), to inform local risk assessments and hospital procedures.

Background

Currently multiple IVIg products are available for administration in NSW. Patients may be transitioned to a different IVIg product with little or no notice. The product information for each product describes a specific administration rate protocol, often utilising different units of measure. e.g: *mL/kg/min* and *mL/kg/hr*. The product information provides limited guidance on patient observations and monitoring with variation between products.

In NSW IVIg products are provided to eligible patients under the National Blood Supply Arrangements. Under these arrangements, procurement of both domestic and imported IVIg products is overseen by the National Blood Authority (NBA). The NBA actively monitors the availability of IVIg products. To ensure supply, the NBA amend the inventory and may introduce new products under these arrangements. When new products are introduced, there may be limited time to amend local administration procedures.

Universal protocols

The expanded inventory of IVIg products has led to an increased risk of administration and patient monitoring errors, due to multiple conflicting IVIg product administration protocols.

Universal administration and monitoring protocols reduce the risk of patient adverse events related to inappropriate rates of administration or patient monitoring.

The NSW Blood Management Clinical Advisory Committee recommends facilities develop a universal *administration* protocol and, endorses the Australian Society of Clinical Immunology and Allergy[1] *Guidelines – Standardised infusion rates for IVIg replacement therapy*. Universal protocols are to include a requirement for individual patient assessment and individualised treatment plans, considering their goals and IVIg tolerance. A suggested universal *monitoring* protocol is outlined in Table 1.

General administration guidance

- All patients should be risk assessed and their maximum dosage individually tailored.
- Patients need to be well hydrated prior to infusion.
- Infusion rates for patients with the following risks should be raised slowly and consideration should be given to applying a lower maximum rate:
  - Patients with renal impairment and > 65 years of age, the maximum rate should not exceed 180mL/hr
  - First dose, changed dose or IVIg product, or > 8 weeks since previous dose
  - Volume depletion
  - Sepsis
  - Obesity
  - IgA deficiency
  - Elevated paraprotein levels
  - Pregnancy/lactation
  - Conditions with increased thrombotic risk

See product Information for all listed precautions

Table 1

Patient observations and patient monitoring Do not increase rate of infusion if observations are outside of normal limits or if patient displays any adverse symptoms
• Prior to commencement (baseline) • Prior to each rate increase or at least every 15 minutes for 1st hour • 15 minutes post increase to maximum rate • If patient observations stable, then hourly for the remainder of the infusion • Patients should be monitored for a minimum of 20 minutes post completion • In naïve patients, consider additional monitoring requirements.

Where can I find more IVIg information?

- NSW Policy Directive: Blood Management (PD2018_042)
- For further information on the indications for IVIg, please refer to Criteria for the Clinical Use of Immunoglobulin in Australia.
- For information on immunoglobulin authorisation and BloodSTAR please refer to https://www.blood.gov.au/best-practice/immunoglobulin-ig/bloodstar
- For further information about IVIg rates, please refer to Australasian Society of Clinical Immunology and Allergy (ASCIA) ASCIA Guidelines for standardised IVIg infusion rates for IRT_2023
- For further information about IVIg education courses, please refer to BloodSafe® eLearning or NSW Health *My Health Learning.*
- For further information about available IVIg products, please refer to Lifeblood Comparison table of IVIg Products (2023). https://www.lifeblood.com.au/sites/default/files/resource-library/2023-03/Attachment-1-Comparison-Table-of-IVIg-Products-Available-from-1-March-2023.pdf

Reference:

1. Australian Society of Clinical Immunology and Allergy (2023). Guidelines – Standardised infusion rates for IVIg (intravenous immunoglobulin) replacement therapy.

About the Blood Watch Program
The CEC's Blood Watch program aims to provide leadership and support in quality care, clinical safety and supply security of blood and blood products to achieve world class transfusion medicine practice in NSW.
For further information, please visit
https://www.cec.health.nsw.gov.au/keep-patients-safe/blood-watch

Adult: Administration of Intravenous Immunoglobulins: Information for clinicians
Released June 2023, © Clinical Excellence Commission. SHPN (CEC) 230402