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**ON THE ISSUE AND**

**USE OF**

**IMMUNOGLOBULIN**

**(Ig)**

**ANNUAL REPORT 2018-19**

NATIONAL REPORT ON THE ISSUE AND USE OF IMMUNOGLOBULIN (Ig)

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# Introduction

Immunoglobulin (Ig) products, derived from pooled human plasma, are a precious and high-cost resource. Strengthening Ig governance is a priority for the National Blood Authority (NBA), and several measures are being developed and implemented to ensure the sustainability of these products into the future.

Immunoglobulin products analysed in this report include intravenous Ig (IVIg), subcutaneous Ig (SCIg) and normal human Ig (NHIg). Aggregated data for IVIg and SCIg are referred to as Ig unless specifically stated. Normal human Ig is reported separately. Immunoglobulin products are used to treat a broad range of conditions, with applications in replacement and immune modulation therapy. This report provides an analysis of national data on national Ig supply in Australia in 2018-19. It also considers trends in supply over the last 10 years.

In Australia it is estimated that over 99 per cent of all Ig is supplied under national blood arrangements through contracts administered by the NBA. The NBA’s role is to coordinate national supply and demand planning for blood and blood products including supply risk management; purchasing blood and blood products on behalf of all Australian governments; developing and implementing national strategies to encourage better governance; promoting appropriate use of blood and blood products; and providing expert advice to support government policy development. Further background is at **Appendix A.**

The national Ig Governance Program was introduced in 2014 to pursue governments’ objectives for Ig products funded and supplied under the national blood arrangements, namely to:

* ensure Ig product use and management reflects appropriate clinical practice and represents efficient, effective and ethical expenditure of government funds, in accordance with relevant national safety and quality standards for health care,
  + - ensure that access to Ig products is consistent with the criteria for access determined by governments, and
    - improve the capture of information of the need for, use of, and outcomes of treatment with Ig products to inform future decisions.

The NBA is responsible for administering the National Ig Governance Program which includes the development and maintenance of a national framework to access government-funded Ig. The current framework comprises a National Policy, the Criteria for access, and BloodSTAR (Blood System for Tracking Authorisations and Reviews), a national online system.

The *National Policy: Access to Government-Funded Immunoglobulin Products in Australia* (National Policy) released in November 2016, sets out the process that must be followed and describes the rules and requirements that must be complied with to access government-funded Ig products in Australia. The National Policy supports all those involved in the prescription, use and management of Ig to understand their roles and responsibilities under the governance arrangements.

The *Criteria for the Clinical Use of Immunoglobulin in Australia* (the Criteria) was developed in collaboration with expert specialist clinicians. It identifies the medical conditions and circumstances for which the use of Ig is clinically appropriate, and where there are no safe, effective and cost-effective alternative treatments. First published in 2007 (Version 1), with the second edition (Version 2) in 2012 and the third edition implemented in October 2018 (Version 3), the Criteria identifies the conditions and circumstances for which the use of Ig is funded under national blood arrangements. In the third edition, eligibility criteria were updated to align with new evidence and best clinical practice, along with other improvements to aid prescribers. Version 3 also reflects earlier updated access arrangements for SCIg and NHIg.

Although Version 3 of the Criteria was introduced in October 2018, not all patients transitioned at this time, with some patients continuing under existing authorisations until their scheduled review. This meant that in 208-19, while most patients accessed treatment under Version 3 of the Criteria*,* some patients were still authorised to receive treatment under Version 2 until the end of the existing authorisation period. All patients will be transitioned to the new Criteriaby October 2019. Therefore, for this 2018-19 report, conditions are a combination of Version 3 and Version 2 Criteria.

Version 3 of the Criteria clearly articulates and standardises the qualifying and continuing Ig access requirements. In 2019-20, 148 specific conditions or 59 medical conditions were classified into 3 categories:

* conditions for which Ig has an established therapeutic role (previously Chapter 5)
* conditions for which Ig has an emerging therapeutic role (previously Chapter 6)
* conditions for which Ig has an application in exceptional circumstances only (previously Chapter 7)
* conditions for which Ig should not be supplied under the national blood arrangements (previously Chapter 8).

Introduced in 2016, BloodSTAR was developed by the NBA on behalf of all Australian Governments to serve the needs of health providers and support users to meet their obligations under the National Policy. Through BloodSTAR, persons in prescriber roles can request patient authorisation for access to government-funded Ig. Under the governance arrangements, persons om dispenser roles may only dispense product to patients with an active authorisation in BloodSTAR. Nurses and Midwives can request product from Dispensers through BloodSTAR. BloodSTAR streamlines the authorisation process, reduces variability, standardises prescribing practices, and increases efficiency and transparency while strengthening decision-making and improving data capture. BloodSTAR implementation commenced across Australia in July 2016 and was completed in October 2018.

In addition to the clinical and diagnostic criteria for access to intravenous products, access to SCIg products is provided through an assurance framework for the appropriate use of the product. Subcutaneous Ig access rules are detailed on the NBA website at <https://www.blood.gov.au/SCIg>. Participation in the National SCIg program requires hospitals to establish their capability and capacity to manage a hospital based SCIg program, where the hospital provides access to all resources and takes full accountability for the management and use of the product within defined governing requirements.

Normal human Ig may only be supplied for two purposes: (i) for the treatment of susceptible contacts of measles, hepatitis A, poliomyelitis and rubella, as directed by public health officials; or (II) for the treatment of immunodeficiency conditions for which the product is indicated for patients for whom IVIg and SCIg are both contraindicated. Normal human Ig access rules are detailed on the NBA website at <https://www.blood.gov.au/NHIg>.

Immunoglobulin products should be prescribed and dispensed in accordance with any the relevant state or territory legislative requirements. In-hospital management of Ig products must also be in accordance with the National Safety and Quality Health Service (NSQHS) Standards, in particular Standards 1, 2 and 7, and the Australian and New Zealand Society of Blood Transfusion (ANZSBT) *Guidelines for the Administration of Blood Products and Guidelines for Transfusion and Immunohaematology Laboratory Practice*.

Demand for Ig is met through domestic and imported Ig products. Domestic Ig is manufactured by CSL Behring (Australia) Pty Ltd (CSL Behring) using plasma collected from voluntary, non-remunerated Australian donations. Both domestic and imported Ig are distributed by the Australian Red Cross Lifeblood (Lifeblood).

Australia is in a unique position to provide analysis and commentary on the use of Ig due to its national supply arrangements*.* This report begins with an analysis of Ig supply over the last 10 years, then considers patient demographics, expenditure on Ig, clinical indications for which Ig was supplied and finally analyses the dose prescribed for various conditions. The top 10 medical conditions account for 88 per cent of all Ig supplied in 2018-19, and for this reason specific analysis focuses on these groups.

**Issues of immunoglobulin**

Immunoglobulin comprises approximately 50 per cent of total blood expenditure each year. Demand for Ig was growing at a consistent annual rate of more than 10 per cent up to and including 2017-18. This rate of growth decreased to 7.2 per cent in 2018-19, which is the lowest annual rate of increase since 2004-05 when Australia first secured supply sufficiency through national importation of Ig by the NBA.

The National Fractionation Agreement for Australia (NaFAA) with CSL Behring commenced on 1 January 2018, for the continued manufacture and supply of fractionated blood plasma products. The NaFAA will continue until 31 December 2026, subject to a review in 2022.

Table 1: Ig growth for the last 5 years

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **2014-15** | **2015-16** | **2016-17** | **2017-18** | **2018-19** |
| 10.2% | 12.4% | 11.2% | 10.6% | 7.2% |

Many of the plasma derived products used in Australia are manufactured under the NaFAA by CSL Behring from plasma collected by the Blood Service. CSL Behring is the sole manufacturer of plasma derived blood products in Australia and the NBA is responsible for negotiating and managing the NaFAA.

In 2018-19, 736.4 tonnes of Australian plasma were pooled for fractionation under the agreements, and expenditure totalled $263.0 million.

Immunoglobulin is imported to meet the shortfall in domestic Ig production against clinical demand in Australia. In addition to supply under the national blood arrangements, the NBA also supports the purchase of small amounts of obtained imported Ig when necessary, through direct orders by individual states and territories.

Two contracts were in place for the supply of imported Ig under the national blood arrangements. The contracts commenced in September 2015 and the base term expired on 31 December 2018. The NBA exercised the available extension options, and the contracts will expire on 31 December 2020. The suppliers are CSL Behring and Grifols Australia Pty Ltd.

# Report Snapshot

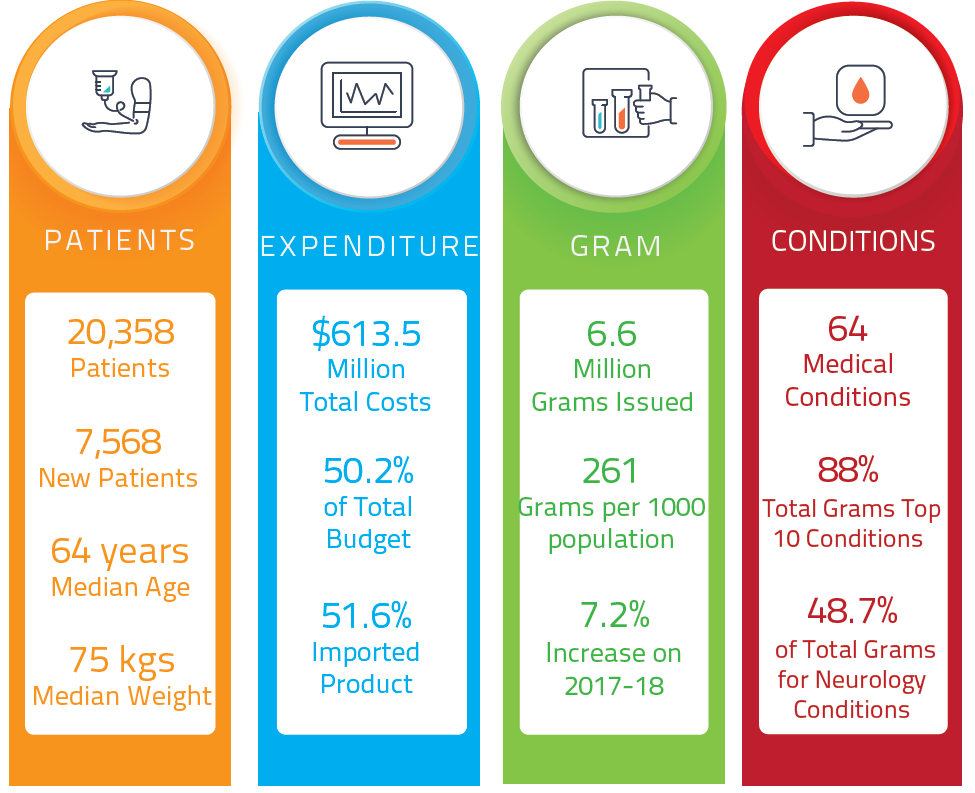


Figure 1: Snapshot

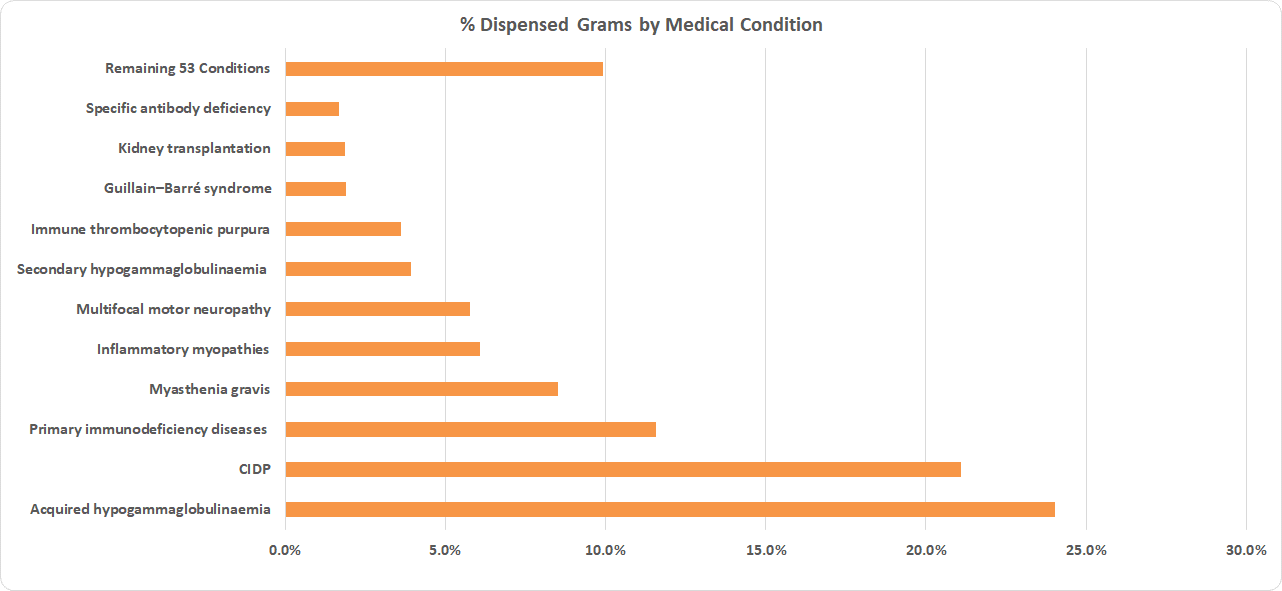


Figure 2: Per cent dispensed grams by medical condition

# Methodology

Prior to 2016-17 authorisation and dispense data were collected by Lifeblood. In 2016, states and territories commenced transition to using BloodSTAR as per Table 2. Lifeblood entered information on current patients and authorisations into BloodSTAR using information from the Supply Tracking Analysis Recording System (STARS). These data are known as l*egacy* data. When comparing data across time there are limitations to some data that may not be directly comparable due to changes in Criteria versions, or whether the data has come from BloodSTAR or STARS. More information about these differences can be found in the data quality section below.

Table 2: Go live dates for BloodSTAR

|  |  |
| --- | --- |
| State and Territory | Go Live Date |
| Northern Territory | 14 July 2016 |
| South Australia | 1 August 2016 |
| Queensland | 22 August 2016 |
| Tasmania | 14 September 2016 |
| Victoria | 26 September 2016 |
| Australian Capital Territory | 24 October 2016 |
| Western Australia | 5 December 2016 |
| New South Wales | 22 October 2018 |

The report includes some language that may be unique to the Australian environment. A list of acronyms and definitions used in this report is at **Appendix B**.

The Criteria groups together several specific conditions into one medical condition. For example, Primary Immunodeficiency Diseases (PID) is a medical condition in the Criteria,with this group incorporating the numerous separate specific conditions. In some cases, the analysis will focus on the medical condition, while in other areas it will focus on the specific condition.

Each specific condition has been classified according to its allocated clinical speciality. For some specific conditions this classification could fit into more than one clinical speciality. For example, there are immunological conditions affecting the blood that could potentially be mapped to either immunology or haematology. Where there appears to be significant overlap between clinical specialities, the specific condition is mapped as agreed by the National Immunoglobulin Governance Advisory Committee (NIGAC). In most cases, the specific condition is mapped to the speciality most likely to be responsible for patients with that specific condition, noting that this can vary. **Appendix C** provides the mapping of specific condition to clinical speciality.

The summary of key items from the data file is provided for each specific condition at the state and territory level. The summary includes patient numbers, average age, average weight, grams of Ig used for the specific condition, grams per treatment episode and grams per 1,000 population (**Appendix D**). The source used for each figure and table is provided at **Appendix E**.

Note that the grams per 1,000 population measure shown in earlier reports has been a poor indicator for benchmarking. Raw population figures do not consider the underlying population age structure, hospital usage patterns, and cross-border referrals; nor do total issues take account of varying product wastage rates across time, and states and territories. A study done in South Australia (SA) in 2010 (Australian Health Review article - "Red alert - a new perspective on patterns of blood use in the South Australian public sector") shows this and can be found at <https://www.publish.csiro.au/AH/AH10957>.

## Data quality

There are some factors relating to data quality, which need to be considered when reading this report. These factors are:

* The reconciliation of data held in STARS, BloodSTAR/BloodNet and Integrated Data Management System (IDMS) indicates minor variances at a national level. In some cases, these differences can be explained by product being ordered and recorded in IDMS the month prior to product being dispensed to a patient.
* Patient and authorisation data for some records are incomplete. For example, data from STARS and BloodSTAR may not always include patient weight. Legacy data entered in BloodSTAR did not include patient weight.
* The Australian Bureau of Statistics (ABS) Australian Demographic Statistics (cat. No 3101.0) was used from 2011-12.
* Care should be taken when interpreting the data relating to the smaller states and territories as one or 2 patients can overly influence the use as compared to larger states.
* There has been no adjustment for Ig dispensed in one state or territory for patients residing in a different state or territory.
* States and territories are based on the state or territory of the facility which dispensed the product.
* The STARS data have age and weight data recorded at treatment dates (first reported in 2009‑10). This data changes over time. Weight data is complete in 2018-19 based on the transition to BloodSTAR.
* Age data are based on the patient’s age on 1 January each year for both STARS and BloodSTAR.
* Episodes in STARS were known as Treatment Episodes. In BloodSTAR these are known as Dispense Events. In this document we have used Treatment Episodes for consistency.
* Patient Counts are distinct counts and will not sum for National or Total rows and columns, as patients may have:
* more than one specific condition,
* product dispensed in more than one state or territory,
* treatment episodes recorded both at a private facility and at a public facility,
* received IVIg and SCIg, or
* received both domestic and imported product.
* In some cases, grams issued or dispensed may not total as the aggregate may be round to the nearest integer.
* Earlier versions of the Criteriaclassified medical conditions into 4 Chapters based on the level of evidence supporting the use of Ig. In BloodSTAR, these are known as Categories.
* Previous annual reporting for Ig, named conditions as Primary Diagnosis or grouped conditions as Disease Category. In BloodSTAR, these are known as Specific Conditions or Medical Conditions respectively. Conditions were also grouped to Disciplines previously and these are now known as Specialities in BloodSTAR.
* For 2018-19 Specific and Medical Conditions are based on the *Criteria* version 2, as per the mapping at **Appendix C**.
* Dispensed data can be entered into BloodSTAR at any time, if there is a valid and active authorisation. This means that a treatment episode may be recorded in one month and the actual treatment episode was in another month which means data for 2017-18 could be recorded in 2018‑19.
* In order to maintain the anonymity of individual patients and health providers, data showing less than 5 may be suppressed or aggregated if there is a potential to re-identify or exceptions are agreed between national and state/territory data custodians.

This report uses data from three primary sources, as follows:

1. Data collected by the NBA on the units of Ig issued to Australian Health Providers (AHPs). These data are held in the NBAs IDMS,
2. Data previously collected by Lifeblood under contractual arrangements with the NBA on behalf of all Australian governments. These data were collected either when an order was placed for Ig or was collected following the treatment where product was issued as imprest stock. The data were collected in Lifeblood’s STARS database, and
3. Data collected by the NBA on the units dispensed by AHPs to be administered to the patient. The data are collected into the NBAs BloodNet and BloodSTAR systems.

**Table 3** shows the reconciliation between the 3 systems used for this report. A variance of 1.9 per cent represents about one week of issues. This difference relates to timing of data entry or product held as imprest stock.

Table 3: Grams recorded in the different systems held by the NBA

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Total Issued Grams** | **BloodSTAR Dispensed Grams** | **STARS Dispensed Grams** | **Total Dispensed Grams** | **Difference Grams** | **Difference %** |
| NSW | **2,374,587** | 1,588,429 | 736,603 | **2,325,032** | 49,555 | 2.1% |
| VIC | **1,460,269** | 1,420,048 | 125 | **1,420,173** | 40,096 | 2.7% |
| QLD | **1,679,227** | 1,664,540 | 1,802 | **1,666,341** | 12,886 | 0.8% |
| SA | **333,821** | 324,321 | 92 | **324,413** | 9,408 | 2.8% |
| WA | **421,196** | 411,365 | 80 | **411,445** | 9,751 | 2.3% |
| TAS | **137,670** | 136,059 | - | **136,059** | 1,611 | 1.2% |
| NT | **31,378** | 30,026 | 92.5 | **30,118** | 1,260 | 4.0% |
| ACT | **134,327** | 132,420 | 100 | **132,520** | 1,807 | 1.3% |
| **Sub Total** | **6,572,475** | **5,707,208** | **738,894** | **6,446,102** | **126,373** | **1.9%** |
| OTHER | **95** |  |  |  |  |  |
| **Total** | **6,572,570** |  |  |  |  |  |

*Note 1: Includes NHIg*

*Note 2: Other includes Norfolk Island*

# Trends

## Demand Trends

In 2018-19 a total of 6,572,570 grams of Ig was issued, representing an increase of 443,758 grams (7.2 per cent) from 2017-18. Prior to 2017-18 the increase in Ig use averaged about 11 per cent, with the greatest proportion of that increase comprising imported products (**Figure 3**).

While a proportion of this increase may be attributable to population increases, there has also been a steady increase in the use of Ig per 1,000 population since the introduction of the Criteria in 2008.

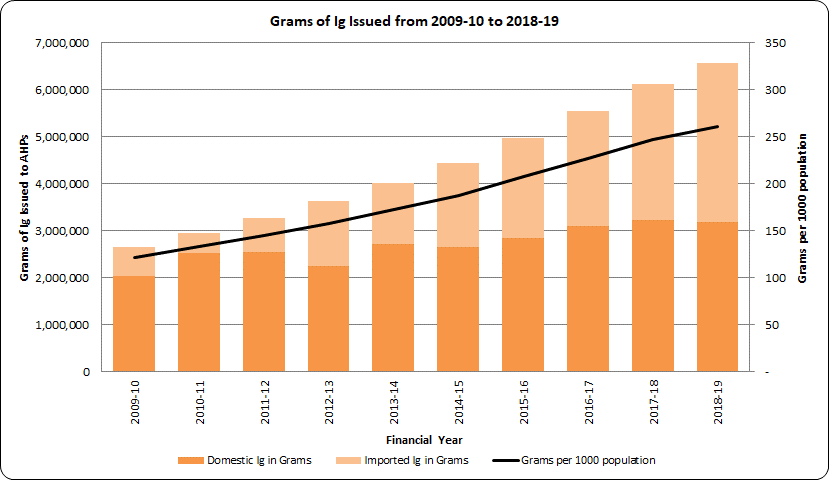


Figure 3: Ten-year trend in issues of Ig

A breakdown of the change per year in grams issued by state and territory has been provided in **Table 4**.

Over the past 10 years the Australian Capital Territory (ACT) has been growing at an average of 14 per cent, followed by the Northern Territory (NT) at 13 per cent.

Table 4: Percentage change in grams issued compared to previous year over time by state and territory

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **NSW** | **VIC** | **QLD** | **SA** | **WA** | **TAS** | **NT** | **ACT** | **National** |
| 2009-10 | 13% | 11% | 15% | 12% | -4% | 7% | -18% | 20% | **12%** |
| 2010-11 | 11% | 10% | 16% | -4% | 10% | 8% | 7% | 28% | **11%** |
| 2011-12 | 11% | 7% | 16% | 9% | 6% | 1% | 47% | 17% | **11%** |
| 2012-13 | 11% | 13% | 11% | 9% | 7% | -6% | 21% | 12% | **11%** |
| 2013-14 | 10% | 11% | 12% | 15% | 6% | 14% | 1% | 12% | **11%** |
| 2014-15 | 9% | 11% | 12% | 7% | 12% | 8% | 8% | 8% | **10%** |
| 2015-16 | 14% | 10% | 14% | 11% | 17% | 2% | 36% | 3% | **12%** |
| 2016-17 | 14% | 11% | 8% | 10% | 18% | 4% | 6% | 7% | **11%** |
| 2017-18 | 11% | 12% | 10% | 5% | 9% | 21% | 23% | 13% | **11%** |
| 2018-19 | 9% | 8% | 4% | 7% | 5% | 8% | 0% | 19% | **7%** |
| **Average last 10 years** | **11%** | **10%** | **12%** | **8%** | **9%** | **7%** | **13%** | **14%** | **11%** |

## Financial Trends

Total expenditure on Ig (excluding plasma for fractionation) in 2018-19 was $341.5 million, an increase of $14.0 million (4.6 per cent) over 2017-18 (**Figure 4**). The increased expenditure predominately represents increases in demand.

There also continues to be an increase in the price of plasma for fractionation due to the increased ratio of apheresis to whole blood plasma for fractionation being supplied, resulting in an increase in the cost of domestic Ig.

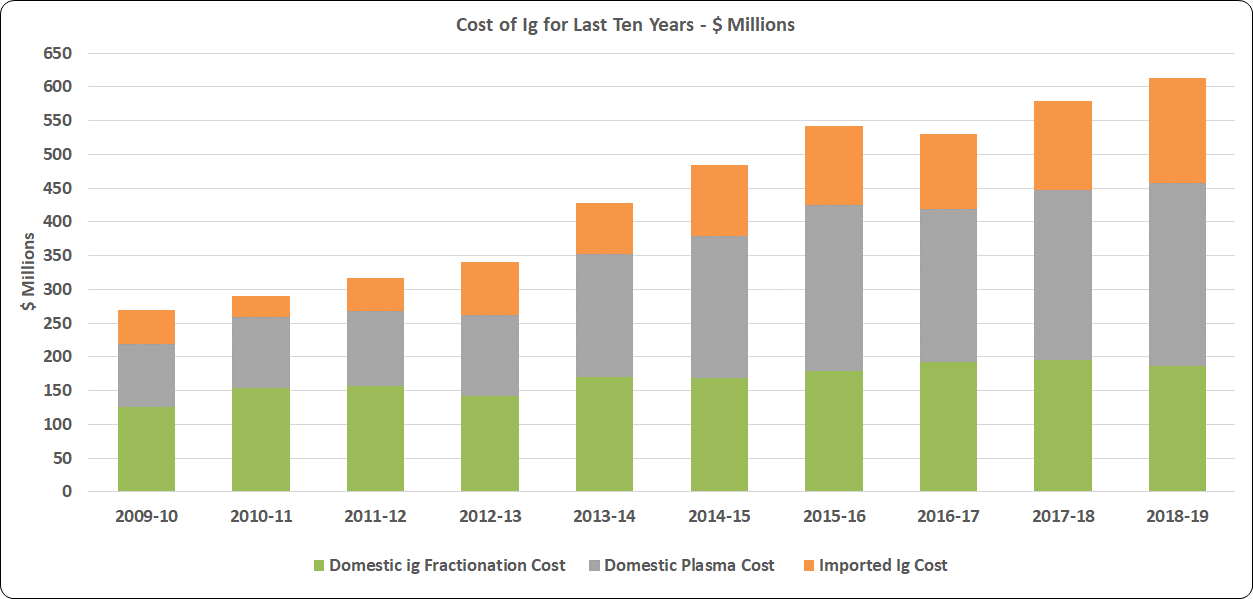


Figure 4: Ten-year trend in expenditure on Ig

In Australia, the total cost of domestic Ig supply comprises the cost of the plasma collected by Lifeblood, plus the cost of purchase of the finished Ig product from the supplier (CSL Behring). Imported Ig product is purchased at a total product cost only.

The cost of Ig as a proportion of the national blood budget is shown at **Figure 5**. Immunoglobulin is the second largest budget item, representing 28 per cent of the total budget for blood and blood products. Combined with expenditure for plasma for fractionation, Ig accounts for 50 per cent of the total blood budget, at a total expenditure of $613.5 million (excluding specific hyperimmune plasma for fractionation).

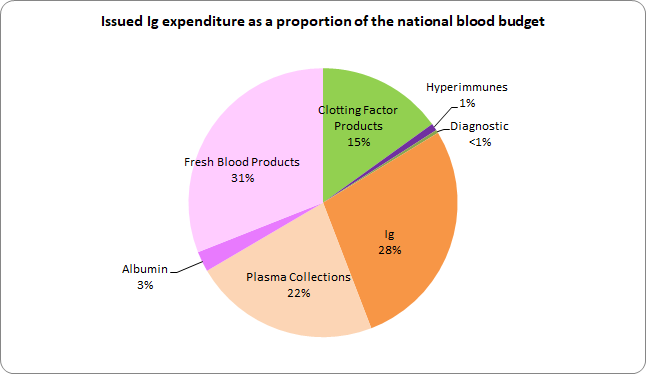


Figure 5: Ig expenditure as a proportion of the national blood budget

Of the Ig supplied under national blood arrangements in Australia in 2018-19, 48 per cent was manufactured domestically and 52 per cent was imported from overseas (see **Table 5**: Issues of domestic Ig compared with imported Ig

This represents a 15.41 per cent increase in product importation from 2017-18. Domestic supply is driven by the amount of plasma for fractionation collected in Australia and this increased by 9 per cent in 2018-19 over 2017-18. Intragam 10 (IVIg) and Evogam (SCIg) were Ig products manufactured domestically in 2018-19.

The imported products available were Privigen (IVIg), Flebogamma (IVIg) and Hizentra (SCIg). When a patient is allocated to receive one of the imported products, the clinician may choose a product different to that allocated by BloodSTAR if there is a valid clinical reason. Supply of Privigen constituted 66.2 per cent of the supply of imported Ig.

**Table 6** shows the split between Ig issues for domestic and imported products, by public and private AHPs for 2018-19.

Table 5: Issues of domestic Ig compared with imported Ig

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | **NSW** | | **VIC** | **QLD** | **SA** | **WA** | **TAS** | **NT** | **ACT** | **National** |
| **Domestic Ig** | Intragam P | g | | 447 | 360 | - | - | - | - | - | - | 807 |
| $(m) | | $0.0 | $0.0 | $0.0 | $0.0 | $0.0 | $0.0 | $0.0 | $0.0 | $0.0 |
| Intragam 10 | g | | 1,126,733 | 667,513 | 828,273 | 154,815 | 209,985 | 61,090 | 8,588 | 55,333 | 3,112,328 |
| $(m) | | $65.9 | $39.0 | $48.4 | $9.0 | $12.3 | $3.6 | $0.5 | $3.2 | $181.9 |
| Evogam | g | | 22,138 | 11,962 | 18,651 | 9,006 | 4,559 | 767 | 909 | 1,426 | 69,419 |
| $(m) | | $1.3 | $0.7 | $1.1 | $0.5 | $0.3 | $0.0 | $0.1 | $0.1 | $4.1 |
| **Total Domestic** | g | | **1,149,318** | **679,834** | **846,924** | **163,821** | **214,544** | **61,857** | **9,496** | **56,759** | **3,182,554** |
| $(m) | | **$67.2** | **$39.7** | **$49.5** | **$9.6** | **$12.5** | **$3.6** | **$0.6** | **$3.3** | **$186.0** |
| **Imported Ig** | Flebogamma | g | | 335,278 | 205,756 | 250,212 | 45,971 | 59,253 | 23,915 | 1,893 | 6,609 | 928,886 |
| $(m) | | $15.1 | $9.3 | $11.3 | $2.1 | $2.7 | $1.1 | $0.1 | $0.3 | $41.8 |
| Privigen | g | | 806,350 | 520,460 | 543,030 | 103,855 | 139,375 | 46,555 | 19,475 | 63,605 | 2,242,705 |
| $(m) | | $36.3 | $23.4 | $24.4 | $4.7 | $6.3 | $2.1 | $0.9 | $2.9 | $100.9 |
| Hizentra | g | | 83,641 | 54,219 | 39,062 | 20,174 | 8,024 | 5,343 | 514 | 7,354 | 218,331 |
| $(m) | | $4.9 | $3.2 | $2.3 | $1.2 | $0.5 | $0.3 | $0.0 | $0.4 | $12.7 |
| **Total Imported** | g | | **1,225,269** | **780,435** | **832,304** | **170,000** | **206,652** | **75,813** | **21,882** | **77,568** | **3,389,922** |
| $(m) | | **$56.3** | **$35.8** | **$38.0** | **$7.9** | **$9.4** | **$3.5** | **$1.0** | **$3.6** | **$155.5** |
| **Proportion of domestic to imported Ig** | | g % | | 48% | 47% | 50% | 49% | 51% | 45% | 30% | 42% | **48%** |
| $(m) % | | 54% | 53% | 57% | 55% | 57% | 51% | 36% | 48% | **54%** |

Note: $(m) excludes the costs for plasma for fractionation.

Note: Excludes Norfolk Island

Table 6: Issues of domestic Ig compared with imported Ig and public versus private Australian Health Providers

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | **NSW** | | | **VIC** | | **QLD** | | **SA** | | **WA** | | **TAS** | | **NT** | | **ACT** | | **National** | |
| **Domestic Ig** | Public | g | | 815,590 | 407,410 | | 305,263 | | 133,959 | | 142,557 | | 47,020 | | 9,496 | | 56,759 | | **1,918,148** | |
| Private | g | | 333,728 | 272,425 | | 541,661 | | 29,863 | | 71,987 | | 14,838 | | - | | - | | **1,264,501** | |
| **Total Domestic** | g | | **1,149,318** | **679,834** | | **846,924** | | **163,821** | | **214,544** | | **61,857** | | **9,496** | | **56,759** | | **3,182,649** | |
| **Imported Ig** | Public | g | | 1,000,437 | 519,201 | | 395,906 | | 146,950 | | 158,610 | | 60,326 | | 21,882 | | 77,568 | | **2,380,878** | |
| Private | g | | 224,833 | 261,235 | | 436,398 | | 23,050 | | 48,043 | | 15,487 | | - | | - | | **1,009,044** | |
| **Total Imported** | g | | **1,225,269** | **780,435** | | **832,304** | | **170,000** | | **206,652** | | **75,813** | | **21,882** | | **77,568** | | **3,389,922** | |
| **Total Ig** | Public | g | | 1,816,026 | 926,610 | | 701,169 | | 280,908 | | 301,167 | | 107,346 | | 31,378 | | 134,327 | | **4,299,025** | |
| Private | g | | 558,561 | 533,659 | | 978,058 | | 52,913 | | 120,030 | | 30,325 | | - | | - | | **2,273,545** | |
| **Total Ig** | g | | **2,374,587** | **1,460,269** | | **1,679,227** | | **333,821** | | **421,196** | | **137,670** | | **31,378** | | **134,327** | | **6,572,570** | |
| **Ig as portion of National** | Public | g% | | 42% | 22% | | 16% | | 7% | | 7% | | 2% | | 1% | | 3% | | **100.0%** | |
| Private | g% | | 25% | 23% | | 43% | | 2% | | 5% | | 1% | | 0% | | 0% | | **100.0%** | |
| **Total Ig** | g% | | **36%** | **22%** | | **26%** | | **5%** | | **6%** | | **2%** | | **0%** | | **2%** | | **100.0%** | |
|  | **Population %** |  | | 32% | 26% | | 20% | | 7% | | 10% | | 2% | | 1% | | 2% | | **100.0%** | |
| **Grams Per 1,000 Population** | Public |  | | 225.9 | 141.9 | | 138.8 | | 161.1 | | 115.6 | | 201.8 | | 127.7 | | 317.4 | | **170.8** | |
| Private |  | | 69.5 | 81.7 | | 193.6 | | 30.3 | | 46.1 | | 57.0 | | - | | - | | **90.3** | |
| **Total Ig** |  | | **295.4** | **223.7** | | **332.5** | | **191.5** | | **161.6** | | **258.9** | | **127.7** | | **317.4** | | **261.1** | |

Note: Excludes Norfolk Island

# Patient demographics

## Patient Numbers

Immunoglobulin was dispensed to 20,358 patients under the national blood arrangements during 2018-19, including 7,568 new patients. This represents a 4.9 per cent increase in the number of patients since 2017-18. A summary of new and total patient numbers is provided in **Figure 6**.

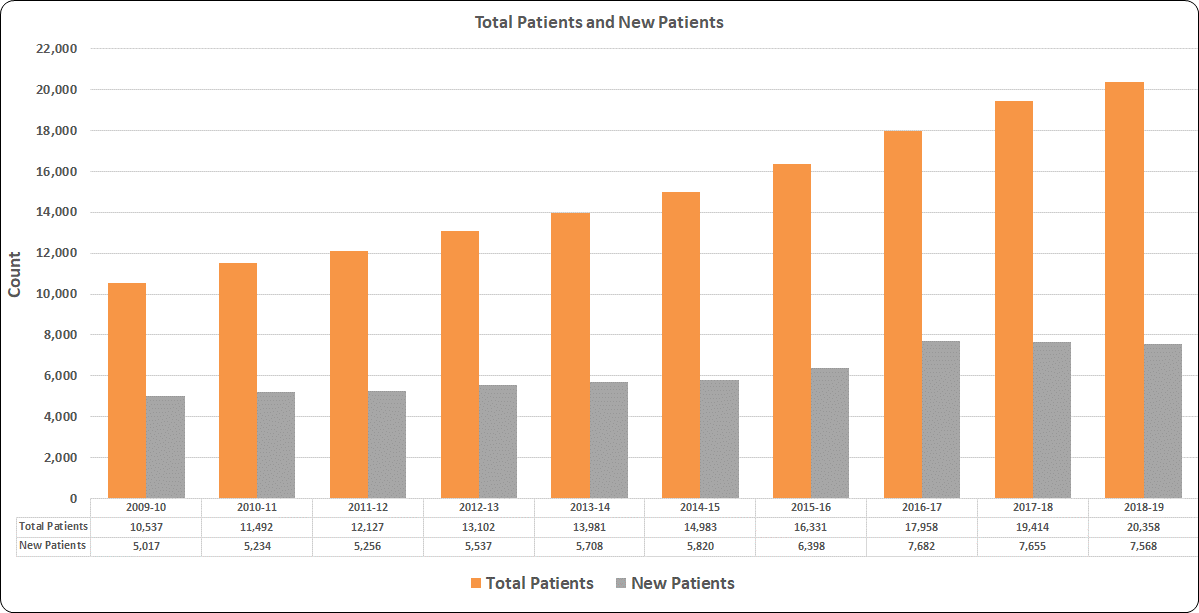


Figure 6: New and total patients since 2009-10

The number of patients per 1,000 population dispensed Ig varies between state and territory. Complete data for specific conditions by state and territory can be found at **Appendix D**.

**Table 7** shows a breakdown of the proportion of patients in each state and territory with a comparison to the proportion of the population in each state and territory.

Table 7: Patient numbers by state and territory

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## age and weight

The distribution of estimated age is shown in **Figure 7** where it is compared with the age distribution of the Australian population at June 2019[[1]](#footnote-1). A bimodal peak can be seen in the patient population treated with Ig, with most Ig recipients aged over 55. The ageing population is expected to place a greater burden on Ig demand into the future, with the proportion of the world’s population over 60 years expected to more than double between 2015 and 2050[[2]](#footnote-2).

Immunoglobulin dosing is dependent on the weight of the patient. For many conditions, the patient weight determines the initial dosing, with maintenance therapy titrated against IgG levels and the patient’s clinical response to therapy.

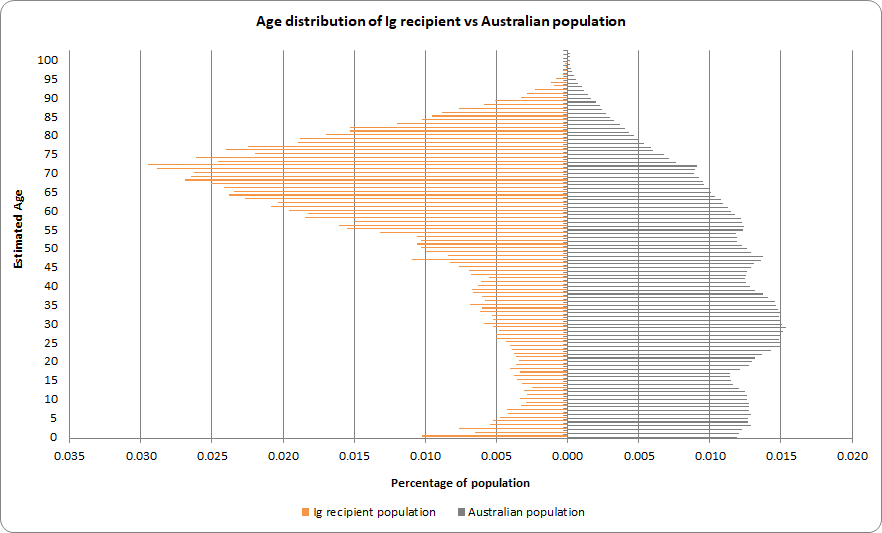


Figure 7: Patient age relative to Australian average

Note: The above figure calculations relate only 2018-19 patients.

**Figure 7** compares the age of Ig recipients in Australia in 2018-19 and the Australian population using stats from the ABS 3101.59 published June 2019[[3]](#footnote-3).

The amount of Ig prescribed for a patient may vary depending on the indication as well as a patient’s weight and is set out in the Criteria. When prescribing Ig, persons in the prescriber role should aim to use the lowest dose possible that achieves the appropriate clinical outcome for each patient. The dose may be adjusted for Ideal Body Weight (IBW) for some patients. A calculator is available in BloodSTAR to facilitate this where appropriate.

With an increasingly obese population, we may expect increases in demand if total (rather than ideal) body weight dosing is continued. Reviews of the literature relating to lean body mass dosing should be considered for future research*.*

Care should be taken when analysing weights, since not all patients have their weight recorded, and for those that do, the weight recorded may not be recent.

**Table 8** shows the number of distinct patients and the average weight by age ranges for patients with dispenses in 2018-19.

Table 8: Patient numbers and average weight by age range

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Age Range** | **Patient Counts** | **Average Weight (kg)** | **Treatment Episodes** | **Grams Dispensed** |
| 0-4 | 714 | 12 | 2,433 | 22,482 |
| 5-9 | 393 | 25 | 2,844 | 37,426 |
| 10-14 | 304 | 44 | 2,997 | 61,805 |
| 15-17 | 216 | 63 | 2,017 | 54,455 |
| 18-19 | 156 | 69 | 1,376 | 38,049 |
| 20-29 | 880 | 74 | 9,023 | 257,259 |
| 30-39 | 1,235 | 77 | 13,246 | 405,834 |
| 40-49 | 1,561 | 81 | 18,273 | 592,153 |
| 50-59 | 2,814 | 81 | 32,604 | 1,024,349 |
| 60-69 | 4,748 | 81 | 52,867 | 1,648,145 |
| 70-79 | 4,916 | 78 | 53,074 | 1,610,370 |
| 80-89 | 2,172 | 73 | 22,318 | 638,936 |
| 90 or more | 249 | 68 | 2,182 | 54,839 |
| **Total** | **20,358** | **74** | **215,254** | **6,446,102** |

# Ig Dispenses

## Ig Dispenses by criteria chapter

TheCriteriaclassifies medical conditions into four chapters based on the level of evidence supporting the use of Ig, as follows:

* Chapter 5, conditions for which Ig has an established therapeutic role
* Chapter 6, conditions for which Ig has an emerging therapeutic role
* Chapter 7, conditions for which Ig has application in exceptional circumstances only
* Chapter 8, conditions for which Ig use is not supported.

Immunoglobulin was predominately dispensed for medical conditions within Chapter 5. Refer to **Appendix D** for further information.

Table 9: Ig grams dispensed by criteria chapter

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Chapter** | **2014-15** | **2015-16** | **2016-17** | **2017-18** | **2018-19** |
| Chapter 5 - has an established therapeutic role | 3,785,615 | 4,223,866 | 4,620,916 | 5,081,838 | 5,406,598 |
| Chapter 6 - has an emerging therapeutic role | 494,489 | 535,596 | 645,636 | 721,766 | 792,821 |
| Chapter 7 - has application in exceptional circumstances only | 178,221 | 216,927 | 220,122 | 271,817 | 246,231 |
| Chapter 8 - use is not supported |  | 5 | 741 | 288 | 453 |
| Other |  |  | 96 | 25 |  |
| **Total** | **4,458,326** | **4,976,394** | **5,487,511** | **6,075,733** | **6,446,102** |

While Ig may be dispensed without an approved authorisation in life threatening situations (including prior to a confirmed diagnosis or in situations where the diagnosis is unclear at the time of treatment), under the National Policy, an authorisation for access must be submitted retrospectively. The *Conditions for which Ig use is not supported* and *Other* dispenses generally reflect situations where a retrospective authorisation request identified Ig was used in an emergency to treat a condition that is not supported, or not otherwise mentioned in the Criteria. Data to support compliance with all aspects of qualifying criteria for each specific condition were not always collected in STARS.

## Ig Dispenses by Speciality

Medical Conditions are classified under a medical speciality. The key specialities are Neurology, Haemotology and Immunology. Other shows total for Nephrology, Transplant Medicine and Dermatology specialities.

All Prescribers are responsible for registering for access to BloodSTAR at each hospital/health facility where they practice and/or are employed. Medical specialists must have their particular speciality field of practice registered with the Australian Health Practitioner Regulation Agency (AHPRA) for the specialty field to be recognised for the purposes of meeting eligibility requirements as specified in the Criteria.

Since 2014-15, there has been a 1.48 fold increase in Ig issues for neurological conditions, compared with a 1.52 fold increase for both haematological conditions and 1.42 fold increase for immunological conditions.

The variation across states and territories in number of new and total patients and the amount of Ig dispensed per clinical speciality is illustrated in **Tables 10 to 12** for 2018-19.

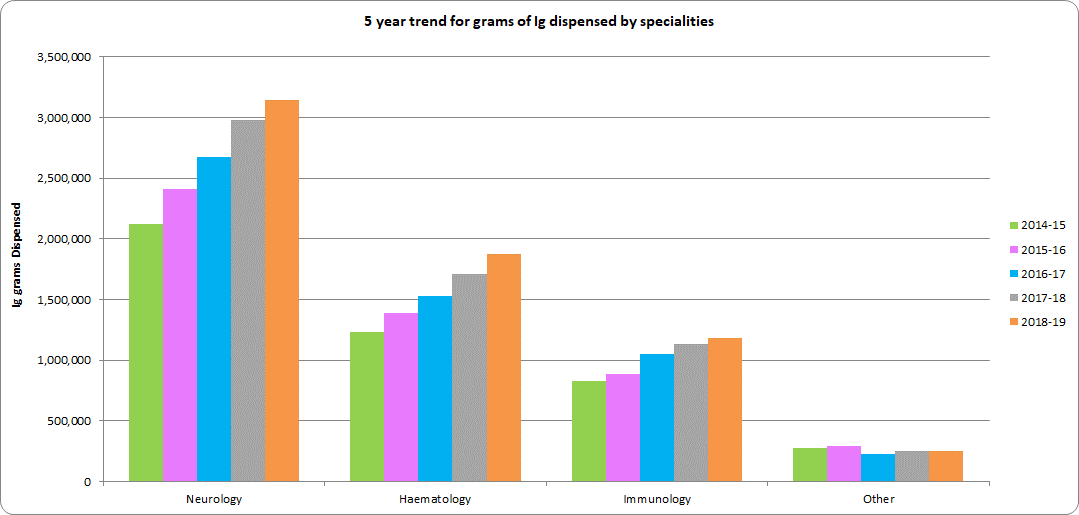


Figure 8: Grams of Ig dispensed by speciality

The data also illustrate the variation between states and territories in the relative amount of Ig used per patient for the same speciality. For example, 31.1 per cent of Western Australia’s (WA) Ig patients were haematology patients, using 16.6 per cent of the state’s total Ig issue in 2018-19. By comparison, nationally, 39.4 per cent of patients were haematology patients, using 29.1 per cent of the national Ig issue – a significantly different ratio of patients to Ig use, as comparted to WA. The reason for this inter-state and territory variation is unknown, but it may represent differences in clinical practice, differing disease profiles in the patient populations, variable access to alternative therapies, or differences due to the availability of specialist services across Australia.

Table 10: Ig grams dispensed by speciality and state and territory for 2018-19

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Specialities** | **NSW** | **VIC** | **QLD** | **SA** | **WA** | **TAS** | **NT** | **ACT** | **National** |
| Dermatology\* | 27,090 | 28,150 | 29,115 | 3,510 | 7,763 | 2,370 | 295 | 4,540 | **102,832** |
| Haematology | 656,810 | 387,951 | 550,722 | 130,285 | 68,493 | 48,153 | 6,095 | 27,406 | **1,875,913** |
| Immunology | 513,314 | 229,921 | 246,491 | 53,643 | 76,913 | 22,126 | 4,389 | 32,701 | **1,179,498** |
| Nephrology\* | 18,295 | 71,725 | 11,305 | 2,583 | 5,275 | 10,210 | 730 | 738 | **120,860** |
| Neurology | 1,103,594 | 684,632 | 826,278 | 133,688 | 252,792 | 52,365 | 18,575 | 67,135 | **3,139,058** |
| Transplant Medicine\* | 5,930 | 17,795 | 2,432 | 705 | 210 | 835 | 35 | **-** | **27,942** |
| **Total** | **2,325,032** | **1,420,173** | **1,666,341** | **324,413** | **411,445** | **136,059** | **30,118** | **132,520** | **6,446,102** |

*\*Included as other in Figure 8*

Table 11: Patients dispensed Ig by speciality and state and territory for 2018-19

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Specialities** | **NSW** | **VIC** | **QLD** | **SA** | **WA** | **TAS** | **NT** | **ACT** | **National** |
| Dermatology\* | 54 | 67 | 39 | 8 | 9 | <5 | <5 | 8 | **<200** |
| Haematology | 2,864 | 1,800 | 2,131 | 602 | 371 | 184 | 35 | 108 | **8,026** |
| Immunology | 1,830 | 938 | 858 | 217 | 316 | 85 | 27 | 106 | **4,330** |
| Nephrology\* | 76 | 224 | 43 | 17 | 32 | 20 | 5 | <5 | **<424** |
| Neurology | 2,747 | 1,601 | 1,901 | 339 | 464 | 115 | 47 | 170 | **7,285** |
| Transplant Medicine\* | 102 | 84 | 10 | 7 | <5 | 5 | <5 | - | **<220** |
| **Total** | **7,649** | **4,679** | **4,952** | **1,188** | **<1,198** | **<415** | **<125** | **<399** | **20,358** |

*\*Included as other in Figure 8*

Table 12: New patients dispensed Ig by speciality and state and territory for 2018-19

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Specialities** | **NSW** | **VIC** | **QLD** | **SA** | **WA** | **TAS** | **NT** | **ACT** | **National** |
| Dermatology\* | 29 | 48 | 9 | 5 | <5 | <5 | <5 | 5 | **<117** |
| Haematology | 1,232 | 799 | 685 | 303 | 164 | 58 | 15 | 46 | **3,285** |
| Immunology | 498 | 324 | 196 | 57 | 101 | 30 | 12 | 23 | **1,228** |
| Nephrology\* | 76 | 126 | 22 | 14 | 26 | 11 | 5 | <5 | **<286** |
| Neurology | 1,020 | 600 | 563 | 127 | 175 | 40 | 17 | 68 | **2,584** |
| Transplant Medicine\* | 67 | 42 | 7 | 5 | <5 | <5 | <5 | - | **<140** |
| **Total** | **2,906** | **1,927** | **1,477** | **511** | **<481** | **<153** | **<61** | **<150** | **7,568** |

*\*Included as other in Figure 8*

## Ig Dispenses by Medical Condition

The top 10 medical conditions account for 88.4 per cent of all Ig supplied, with the top 3 medical conditions accounting for 56.7 per cent. Acquired hypogammaglobulinaemia — haematological malignancy and post haemopoietic stem cell transplantation (HSCT) is the medical condition for which the greatest percentage of Ig was dispensed in 2018-19 (24.0 per cent), closely followed by chronic inflammatory demyelinating polyneuropathy (CIDP) (21.1 per cent). Primary immunodeficiency diseases (PID) with antibody deficiency accounted for 11.6 per cent of total Ig use.

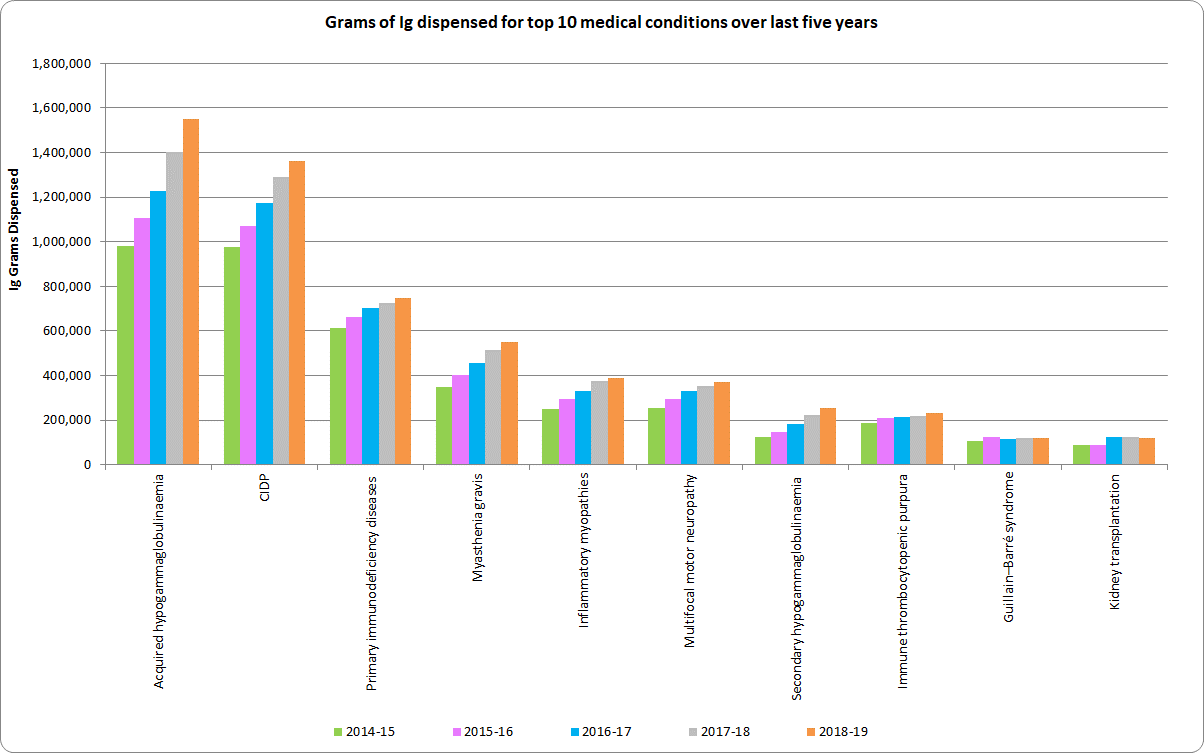


Figure 9: Grams of Ig dispensed by top 10 medical conditions

The top 10 medical conditions by state and territory for 2018-19 is presented in **Table 13**.

Table 13: Grams dispensed by states and territories and medical condition for 2018-19

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Specialities** | **NSW** | **VIC** | **QLD** | **SA** | **WA** | **TAS** | **NT** | **ACT** | **National** |
| Acquired hypogammaglobulinaemia | 545,093 | 315,501 | 471,109 | 96,440 | 54,066 | 41,603 | 5,132 | 19,088 | **1,548,032** |
| CIDP | 495,909 | 293,695 | 352,554 | 42,433 | 117,902 | 27,453 | 6,808 | 22,853 | **1,359,604** |
| Primary immunodeficiency diseases | 344,677 | 144,451 | 139,549 | 38,875 | 40,410 | 11,495 | 3,789 | 23,167 | **746,412** |
| Myasthenia gravis | 163,720 | 150,429 | 163,495 | 13,743 | 40,575 | 4,780 | 275 | 12,788 | **549,804** |
| Inflammatory myopathies | 130,762 | 87,879 | 105,545 | 28,128 | 21,780 | 5,490 | 1,095 | 10,423 | **391,101** |
| Multifocal motor neuropathy | 119,221 | 70,127 | 77,460 | 35,315 | 42,390 | 6,658 | 7,760 | 13,945 | **372,875** |
| Secondary hypogammaglobulinaemia | 101,188 | 48,082 | 78,655 | 3,747 | 10,328 | 7,660 | 165 | 3,058 | **252,882** |
| Immune thrombocytopenic purpura | 85,834 | 49,875 | 54,950 | 25,370 | 8,600 | 4,235 | 593 | 3,740 | **233,196** |
| Guillain–Barré syndrome | 51,590 | 27,210 | 22,009 | 5,778 | 10,820 | 1,590 | 690 | 2,375 | **122,061** |
| Kidney transplantation | 18,295 | 71,725 | 11,305 | 2,583 | 5,275 | 10,210 | 730 | 738 | **120,860** |
| **Total** | **2,056,287** | **1,258,972** | **1,476,631** | **292,409** | **352,145** | **121,173** | **27,036** | **112,173** | **5,696,825** |

# Ig Dispenses - IVIg and SCIg

In March 2013, the Jurisdictional Blood Committee (JBC) approved the introduction of SCIg under the national blood arrangements. In 2018-19 the SCIg products supplied by the NBA are:

* Evogam 16% 0.8g/5ml and 3.2g/20ml supplied by CSL Behring (domestic)
* Hizentra 5% 1g/5ml, 2g/10ml, 4g/20ml and 10g/50ml supplied by CSL Behring (imported).

In addition to the clinical and diagnostic criteria for access to immunoglobulin products, access to SCIg products is provided through an assurance framework for the appropriate use of the product. The first phase of implementation was through hospital-based management arrangements. Subcutaneous Ig access rules are detailed on the NBA website at <https://www.blood.gov.au/SCIg>. Participation in the National SCIg program requires hospitals to establish their capability and capacity to manage a hospital based SCIg program, where the hospital provides access to all resources and takes full accountability for the management and use of the product within defined governing requirements. Further work will be undertaken to support supply of SCIg for other pathways of care.

In 2018-19 the medical conditions that SCIg can be used to treat are:

* primary immunodeficiency diseases with antibody deficiency,
* specific antibody deficiency,
* acquired hypogammaglobulinaemia secondary to haematological malignancies, or post-haemopoietic stem cell transplantation (HSCT), and
* secondary hypogammaglobulinaemia unrelated to haematological malignancies, or post-haemopoietic stem cell transplantation (HSCT).

These products are authorised and distributed by Lifeblood in the same manner as IVIg.

**Tables 14-17** show the patient numbers, grams dispensed, by medical condition and IVIg and SCIg products or by state and territory for in 2018-19.

Table 14: Patients dispensed by SCIg/IVIg medical conditions and product for 2018-19

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **IVIg** | | | | | | **SCIg** | |  |
| **Medical Condition** | **Flebogamma 5%** | **Flebogamma 10%** | **Intragam P** | | **Intragam 10** | **Privigen 10 %** | **Evogam** | **Hizentra** | **Total** |
| Acquired hypogammaglobulinaemia | 64 | 234 | 5 | 6,621 | | 1,064 | 35 | 233 | **6,266** |
| Primary immunodeficiency diseases | 44 | 23 | 17 | 2,252 | | 66 | 204 | 382 | **2,266** |
| Secondary hypogammaglobulinaemia | 35 | 48 | <5 | 990 | | 175 | 31 | 56 | **1,045** |
| Specific antibody deficiency | 5 | <5 | - | 396 | | 19 | 27 | 57 | **389** |

Table 15: Grams dispensed by SCIg/IVIg medical conditions and product for 2018-19

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **IVIg** | | | | | **SCIg** | |  |
| **Medical Condition** | **Flebogamma 5%** | **Flebogamma 10%** | **Intragam P** | **Intragam 10** | **Privigen 10 %** | **Evogam** | **Hizentra** | **Total** |
| Acquired hypogammaglobulinaemia | 14,850 | 38,395 | 39 | 1,223,168 | 200,145 | 6,196 | 65,239 | **1,548,032** |
| Primary immunodeficiency diseases | 13,082 | 5,855 | 366 | 546,415 | 22,710 | 46,426 | 111,547 | **746,412** |
| Secondary hypogammaglobulinaemia | 8,846 | 9,575 | 24 | 177,333 | 36,200 | 6,636 | 14,269 | **252,882** |
| Specific antibody deficiency | 1,726 | 900 | - | 82,990 | 4,445 | 5,367 | 13,519 | **108,946** |

Table 16: Patients dispensed by SCIg medical conditions and state and territory for 2018-19

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Products** | **NSW** | **VIC** | **QLD** | **SA** | **WA** | **TAS** | **NT** | **ACT** | **National** |
| Acquired hypogammaglobulinaemia | 42 | 92 | 55 | 50 | <5 | 13 | <5 | 10 | **261** |
| Primary immunodeficiency diseases (PID) | 203 | 148 | 107 | 45 | 29 | 6 | <5 | 26 | **560** |
| Secondary hypogammaglobulinaemia | 20 | 17 | 37 | <5 | 8 | <5 | - | - | **84** |
| Specific antibody deficiency | 26 | 9 | 14 | 10 | 13 | <5 | - | <5 | **<83** |

Table 17: Grams dispensed by SCIg medical conditions and state and territory for 2018-19

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Products** | **NSW** | **VIC** | **QLD** | **SA** | **WA** | **TAS** | **NT** | **ACT** | **National** |
| Acquired hypogammaglobulinaemia | 15,266 | 22,648 | 13,964 | 13,697 | 743 | 3,416 | 72 | 1,629 | **71,435** |
| Primary immunodeficiency diseases | 68,265 | 34,892 | 29,283 | 11,125 | 6,887 | 999 | 1,189 | 5,333 | **157,973** |
| Secondary hypogammaglobulinaemia | 6,179 | 2,789 | 9,112 | 184 | 1,466 | 1,175 | - | - | **20,905** |
| Specific antibody deficiency | 8,099 | 1,289 | 3,564 | 1,856 | 2,625 | 269 | - | 1,184 | **18,886** |

# Ig Issued – NHIg

In 2013-14, due to the introduction of SCIg as discussed above, demand for NHIg reduced significantly by 18.8 per cent. CSL Behring produces NHIg from hyperimmune plasma specially collected by Lifeblood. The volume of product is limited by the availability of this specialised plasma, and by production scheduling arrangements in CSL Behring’s manufacturing facility.

Demand for NHIg further declined in 2014-15 by 78 per cent because of implementation of the NHIg policy outlining the national position on access and use under the national blood arrangements.

Normal human Ig may only be supplied for two purposes; for the treatment of susceptible contacts of measles, hepatitis A, poliomyelitis, and rubella, as directed by public health officials; and for the treatment of immunodeficiency conditions for which the product is indicated for patients for whom IVIg and SCIg are both contraindicated. Normal human Ig access rules are detailed on the NBA website at <https://www.blood.gov.au/NHIg>.

**Figure 10** shows the grams issued and the grams issued per 1,000 population by states and territories for either purpose listed above.

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Figure 10: NHIg grams issued and grams issued per 1,000 population

# Appendices

## Appendix A – Background

**Funding for Ig**

The Commonwealth funded 63 per cent of Ig supplied under the national blood arrangements, with the remaining 37 per cent funded by the state or territory to which the product is supplied.

**The Criteria**

The *Criteria for the Clinical Use of Immunoglobulin in Australia* (the Criteria) is a publication that describes the eligibility criteria that patients must meet to receive Ig that is funded by all Australian governments. Product is provided at no cost to the patient where patients meet the qualifying criteria for access as outlined in the Criteria. The Criteria helps to ensure that Ig is accessed consistently across Australia for the treatment of patients whose health is likely to be improved with Ig therapy. It was developed using the best available scientific evidence and medical expertise.

Version 3 of the Criteria, was published in October 2018, replacing the *Criteria for the Clinical use of Intravenous Immunoglobulin in Australia* – second edition which was introduced in August 2012. Eligibility criteria were updated to align with new evidence and best clinical practice, along with other improvements to aid prescribers. Version 3 of the Criteria also reflects earlier updated access arrangements for SCIg and NHIg.

Although the Version 3 of the Criteria was introduced in October 2018, some patients continued under existing authorisations until their scheduled review for some conditions, while others transitioned on 22 October 2018.

**Supply of Product**

Immunoglobulin is made from donated human plasma. In Australia Lifeblood is contracted to collect plasma for fractionation, which is then supplied to CSL Behring, who is responsible for the manufacture of Australian plasma derived products. To supplement the supply of Australian Immunoglobulin, the NBA contracts additional suppliers to import Ig products to ensure demand can be met adequately.

There are two main ways Ig is available in Australia:

1. Supply under national blood arrangements

If Ig is ordered to treat a medical condition which is funded under the Criteria, then the product is supplied and funded under national blood arrangements. In this case the cost of the product is shared between the Commonwealth and the relevant state or territory.

Orders for Ig under national blood arrangements are made to Lifeblood, which is contracted by the NBA as the authoriser and distributor of all Ig funded under these arrangements. Clinicians are required to seek authorisation to access government funded Ig for their patients through BloodSTAR. In seeking authorisation, clinicians must provide information to establish that the request in BloodSTAR meets the Criteria. For ongoing conditions, the Criteria may specify review criteria to be applied for reviewing the patient to determine whether access to funded Ig can continue.

Prior to the introduction of BloodSTAR, and in its role as authoriser of requests for Ig, Lifeblood previously maintained a database of requests, and provides data to the NBA for use as a basis for reporting on the [annual use of Ig in Australia](http://www.blood.gov.au/data-analysis-reporting), known as STARS data. BloodSTAR now holds these data for all states and territories.

1. Direct order and other supply arrangements

For several reasons, medical specialists may sometimes want to prescribe Ig for medical conditions that are not funded under the national blood arrangements as defined in the Criteria. In such cases, IVIg or SCIg may be available either through jurisdictional direct order (JDO) arrangements, or directly from suppliers on a commercial basis, at private expense.

Under JDO arrangements, AHPs can purchase imported product only (IVIg or SCIg) directly from the supplier at an equivalent price to that negotiated by the NBA.

Every state or territory health department is responsible for advising each supplier of imported IVIg and SCIg product of the AHPs in their state or territory. Processes vary, with some state or territory confirming AHP status to the supplier each time a JDO is requested, and others having longer-standing arrangements.

Application and approval arrangements for doctors seeking access to imported Ig products raised through a JDO vary between hospitals and states and territories, but usually involve seeking access through the local hospital therapeutics or Ig committee, or equivalent. Where approval is granted, the cost of the imported Ig product purchased through a JDO is usually borne directly by the AHP.

**2018-19 Activities**

The history of NBA activities prior to 2019-20 can be found in previous *National Report on the Issues and Use of Immunoglobulin (Ig) – Annual Reports*.

**BloodSTAR is now live in all states and territories**

During 2016-17, the NBA successfully launched BloodSTAR in all states except NSW. In October 2018 NSW went live in BloodSTAR.

**Publication of the third edition of the National Policy**

The third edition of the National Policy was released in July 2019 [National Policy: Access to Government Funded Immunoglobulin Products in Australia | National Blood Authority](https://www.blood.gov.au/national-policy-to-ig).

**Publication of Module 2 of the Guidelines for Managing Blood and Blood Product Inventory**

The Guidelines for Managing Blood and Blood Product Inventory provides better practice processes that can be used by health providers to ensure risks associated with receipt, storage, collection and transport of blood and blood products are mitigated. It also identifies improvement opportunities for implementation.

In 2016-17, the NBA developed Module 2 to supplement the overarching inventory management principles and support the implementation of BloodSTAR. The module aims to assist health providers in meeting the requirements of the National Policy by:

* describing how to establish and manage stock levels
* outlining the Ig product ordering models
* identifying different methods to determine ordering requirements/triggers
* providing recommendations for good practice.

The document underwent public consultation prior to release. Version 2 of the Guidelines was published in September 2018.

The NBA Ig Governance Program continued its work throughout **2018-19** to improve the Governance and management of publicly funded Ig. This program aims to ensure:

* Ig product use and management reflects appropriate clinical practice and represents efficient, effective, and ethical expenditure of government funds, in accordance with relevant national safety and quality standards for health care
* access to Ig products is consistent with the Criteria for access determined by governments
* improved capture of information on the need for, use of, and outcomes of treatment (including adverse events) with Ig products to inform future changes to the Criteria.

During the **2018-19** period, the program focused on the four key activities listed below:

1. Launched BloodSTAR (*Blood System for Tracking Authorisations and Reviews*) in New South Wales in October 2018
2. Release of Version 3 of the Criteria and commencement of a transition strategy for existing Ig authorisations, including for NSW patients, via BloodSTAR from October 2018
3. Continued implementation of the *National Immunoglobulin Program Performance Improvement Strategy 2019-20 to 2021-22*
4. Continued engagement with the program's network of committees to inform, the work of the national immunoglobulin (Ig) governance program.

For further information on the Ig Governance Program go to the NBA website at <https://www.blood.gov.au/Ig-program>.

## Appendix B – Acronyms and Glossary

Acronyms

|  |  |
| --- | --- |
| ABS | Australian Bureau of Statistics |
| ACT | Australian Capital Territory |
| AHP | Australian Health Provider |
| AHPRA | Australian Health Practitioner Regulation Agency |
| ANZSBT | Australia and New Zealand Society of Blood Transfusion |
| BloodNet | The national online ordering and inventory management system |
| BloodSTAR | Blood System for Tracking Authorisations and Reviews |
| CIDP | Chronic Inflammatory Demyelinating Polyneuropathy |
| HSCT | Hematopoietic stem cell transplantation |
| HTA | Health Technology Assessment |
| IDMS | Integrated Data Management System |
| Ig | Immunoglobulin products including IVIg and SCIg |
| IVIg | Intravenous immunoglobulin |
| JBC | Jurisdictional Blood Committee |
| MSAC | Medical Services Advisory Committee |
| NBA | National Blood Authority |
| NHIg | Normal human immunoglobulin |
| NIGAC | National Immunoglobulin Governance Advisory Committee |
| NSQHS | National Safety and Quality Health Service |
| NSW | New South Wales |
| NT | Northern Territory |
| PID | Primary Immunodeficiency Diseases |
| QLD | Queensland |
| SA | South Australia |
| SCIg | Subcutaneous Immunoglobulin |
| STARS | Supply Tracking Analysis Recording System |
| TAS | Tasmania |
| VIC | Victoria |
| WA | Western Australia |

Glossary of terms

| Term | Description |
| --- | --- |
| Blood products | Products manufactured from human blood |
| Lifeblood | The Australian Red Cross Lifeblood |
| Condition | Clinical conditions are categorised according to the quality of the available evidence and whether immunoglobulin treatment is considered beneficial  Specific conditions (previously known as primary diagnosis) within a medical condition (previous known as disease category). In some instances, the medical condition may be the same as the specific condition, for example – Myasthenia gravis is the specific condition and the medical condition |
| *Criteria for the clinical use of immunoglobulin in Australia (*theCriteria*)* | A document describing the conditions, indications and patient qualifying and review criteria for which Ig is funded under national blood arrangements by all Australian governments |
| Direct Orders | Previously known as Jurisdictional Direct Orders. Arrangements implemented by the NBA with suppliers to facilitate the purchase of Ig for the treatment of conditions not satisfying the *Criteria for the clinical use of Ig in Australia* |
| Fractionation | A manufacturing process that separates blood plasma into specific protein fractions |
| Imprest stock | Health provider orders product for stock that is maintained at a certain level and held at their site |
| Intravenous immunoglobulin | An immunoglobulin product derived from donated human plasma that is administered intravenously |
| Jurisdiction | Any of the parties to the Australian National Blood Agreement, being the Australian Government and all state and territory governments |
| Minimum Product Inventory | The minimum inventory of Ig held by CSL Behring to meet contract obligations |
| National Blood Agreement | The Agreement signed by all governments in 2003 that sets out the objectives for governments for the management of the Australian blood sector |
| National blood arrangements | Arrangements, including funding arrangements, established under the National Blood Agreement |
| National CSL Reserve | The reserve of inventory of Ig that CSL Behring manages on behalf of the NBA for contingency purposes |
| Normal immunoglobulin | An immunoglobulin product derived from human plasma that is administered by intramuscular injection (as opposed to intravenous or sub-cutaneous injection) |
| Plasma | The liquid part of the blood containing antibodies and other proteins |
| Speciality | Classification of the conditions according to the clinical speciality, previously discipline |
| Subcutaneous immunoglobulin | An immunoglobulin product derived from donated human plasma that is administered subcutaneously |
| Treatment episode or Dispense Event | One instance or episode of a treatment plan, for example a treatment plan may be made up of 4 episodes over 4 months with an episode occurring every 4 weeks (4 treatment episodes) OR 1 dose of transfused product every two weeks for 6 months would be 13 treatment episodes or dispense event |

## Appendix C – Conditions mapping table

| Specific Condition Name | Medical Condition Name | Version | Chapter | Speciality |
| --- | --- | --- | --- | --- |
| Acute disseminated encephalomyelitis | Acute disseminated encephalomyelitis (ADEM) | 2 | 6 | Neurology |
| Acute leukaemia | Acquired hypogammaglobulinaemia — haematological malignancy and post HSCT | 3 | 5 | Haematology |
| Acute leukaemia in children | Acute leukaemia in children | 2 | 7 | Haematology |
| Autoimmune haemolytic anaemia | Autoimmune haemolytic anaemia (AIHA) | 2 | 6 | Haematology |
| Autoimmune neutropenia | Autoimmune neutropenia | 2 | 7 | Immunology |
| Autoimmune retinopathy | Autoimmune retinopathy (AIR) | 3 | 7 | Immunology |
| Autoimmune uveitis | Autoimmune uveitis | 2 | 7 | Immunology |
| Bullous pemphigoid | Bullous pemphigoid (BP) | 2 | 6 | Dermatology |
| Catastrophic antiphospholipid syndrome | Catastrophic antiphospholipid syndrome | 2 | 7 | Immunology |
| Cerebellar degeneration | Paraneoplastic neurological syndromes | 2 | 7 | Neurology |
| Chronic Immune thrombocytopenic purpura (ITP) | Immune thrombocytopenic purpura (ITP) — adult | 3 | 5 | Haematology |
| Chronic inflammatory demyelinating polyneuropathy | Chronic inflammatory demyelinating polyneuropathy (CIDP) | 2 | 5 | Neurology |
| Chronic lymphocytic leukaemia | Acquired hypogammaglobulinaemia — haematological malignancy and post HSCT | 2 | 5 | Haematology |
| Churg-Strauss syndrome | ANCA-positive systemic necrotising vasculitis | 2 | 6 | Immunology |
| Cicatricial pemphigoid/ mucous membrane pemphigoid | Cicatricial pemphigoid (CP) or Mucous Membrane Pemphigoid (MMP) | 2 | 6 | Dermatology |
| Coagulation factor inhibitors | Coagulation factor inhibitors | 2 | 7 | Haematology |
| Combined immunodeficiency generally less profound than SCID (e.g. thymoma) | Primary immunodeficiency diseases (PID) with antibody deficiency | 3 | 5 | Immunology |
| Common variable immunodeficiency disease (CVID) | Primary immunodeficiency diseases (PID) with antibody deficiency | 2 | 5 | Immunology |
| Dermatomyositis | Inflammatory myopathies: polymyositis (PM), dermatomyositis (DM) and inclusion body myositis (IBM) | 2 | 5 | Neurology |
| Devic disease (neuromyelitis optica) | Devic disease (neuromyelitis optica) | 2 | 7 | Neurology |
| Diabetic amyotrophy | Diabetic amyotrophy | 2 | 7 | Neurology |
| Encephalitis associated with antibodies to CASPR2 | Antibody mediated autoimmune encephalitis (AMAE) | 3 | 6 | Neurology |
| Encephalitis associated with antibodies to GABA (A or B) receptor | Antibody mediated autoimmune encephalitis (AMAE) | 3 | 6 | Neurology |
| Encephalitis associated with antibodies to glycine receptor | Antibody mediated autoimmune encephalitis (AMAE) | 3 | 6 | Neurology |
| Encephalitis associated with antibodies to LGI1 | Antibody mediated autoimmune encephalitis (AMAE) | 3 | 6 | Neurology |
| Encephalitis associated with antibodies to NMDA receptor | Antibody mediated autoimmune encephalitis (AMAE) | 3 | 6 | Neurology |
| Encephalitis associated with antibodies to VGKC | Antibody mediated autoimmune encephalitis (AMAE) | 3 | 6 | Neurology |
| Epidermolysis bullosa acquisita | Epidermolysis bullosa acquisita | 2 | 7 | Dermatology |
| Epilepsy (rare childhood cases) | Epilepsy | 2 | 7 | Neurology |
| Evans syndrome | Evans syndrome | 2 | 6 | Haematology |
| Feto-maternal/neonatal alloimmune thrombocytopenia (Antenatal) | Feto-maternal/neonatal alloimmune thrombocytopenia (FMAIT/NAIT) | 2 | 6 | Haematology |
| Feto-maternal/neonatal alloimmune thrombocytopenia (Neonatal) | Feto-maternal/neonatal alloimmune thrombocytopenia (FMAIT/NAIT) | 2 | 6 | Haematology |
| Graves ophthalmopathy | Graves ophthalmopathy | 2 | 7 | Neurology |
| Guillain–Barré syndrome | Guillain–Barré syndrome (GBS) | 2 | 5 | Neurology |
| Haemolytic disease of the newborn | Haemolytic disease of the newborn (HDN) | 2 | 7 | Haematology |
| Haemophagocytic lymphohistiocytosis | Haemophagocytic lymphohistiocytosis | 3 | 6 | Haematology |
| Haemophagocytic syndrome | Haemophagocytic syndrome | 2 | 6 | Haematology |
| Hashimoto encephalopathy | Hashimoto encephalopathy | 2 | 7 | Neurology |
| Idiopathic dilated cardiomyopathy | Idiopathic dilated cardiomyopathy | 2 | 8 | Haematology |
| IgG subclass deficiency (existing authorisation) | Specific antibody deficiency (SAD) | 2 | 6 | Immunology |
| IgM para-proteinaemic neuropathy | IgM paraproteinaemic demyelinating neuropathy | 2 | 6 | Neurology |
| Inclusion body myositis | Inflammatory myopathies: polymyositis (PM), dermatomyositis (DM) and inclusion body myositis (IBM) | 2 | 5 | Neurology |
| ITP associated with HIV | Immune thrombocytopenic purpura (ITP) — adult | 2 | 5 | Haematology |
| ITP in children | Immune thrombocytopenic purpura (ITP) — in children 15 years and younger | 2 | 6 | Haematology |
| ITP in pregnancy | Immune thrombocytopenic purpura (ITP) — adult | 2 | 5 | Haematology |
| ITP in specific circumstances (surgery, other therapy contraindicated, chronic ITP, concurrent risk factors) | Immune thrombocytopenic purpura (ITP) — adult | 2 | 5 | Haematology |
| ITP refractory acute | Immune thrombocytopenic purpura (ITP) — adult | 2 | 5 | Haematology |
| ITP with life-threatening haemorrhage or potential life-threatening haemorrhage | Immune thrombocytopenic purpura (ITP) — adult | 2 | 5 | Haematology |
| Kawasaki disease | Kawasaki disease | 2 | 5 | Immunology |
| Kidney transplantation post-transplant | Kidney transplantation | 2 | 6 | Nephrology |
| Kidney transplantation pre-transplant | Kidney transplantation | 2 | 6 | Nephrology |
| Lambert–Eaton myasthenic syndrome | Lambert–Eaton myasthenic syndrome (LEMS) | 2 | 5 | Neurology |
| LETMs | Neuromyelitis optica spectrum disorders (NMOSD) | 3 | 7 | Neurology |
| Limbic encephalitis | Paraneoplastic neurological syndromes | 2 | 7 | Neurology |
| Limbic encephalitis, nonparaneoplastic | Limbic encephalitis — nonparaneoplastic | 2 | 7 | Neurology |
| Lymphoproliferative syndromes (e.g. XLP1, XLP2, CD27 def) | Primary immunodeficiency diseases (PID) with antibody deficiency | 2 | 5 | Immunology |
| Macrophage activation syndrome | Haemophagocytic lymphohistiocytosis | 3 | 6 | Haematology |
| Memory B cell deficiency secondary to haemopoietic stem cell transplantation (HSCT) | Acquired hypogammaglobulinaemia — haematological malignancy and post HSCT | 3 | 5 | Haematology |
| Microscopic polyangiitis | ANCA-positive systemic necrotising vasculitis | 2 | 6 | Immunology |
| Multifocal motor neuropathy with or without persistent conduction block | Multifocal motor neuropathy (MMN) | 2 | 5 | Neurology |
| Multiple myeloma | Acquired hypogammaglobulinaemia — haematological malignancy and post HSCT | 2 | 5 | Haematology |
| Multiple sclerosis - severe relapse with no response to high dose methylprednisolone | Multiple sclerosis (MS) | 2 | 6 | Neurology |
| Multiple sclerosis in pregnancy and the immediate post-partum period | Multiple sclerosis (MS) | 2 | 6 | Neurology |
| Multiple sclerosis in young patients severe/relapsing/remitting in whom other therapies have failed | Multiple sclerosis (MS) | 2 | 6 | Neurology |
| Myasthenia gravis | Myasthenia gravis (MG) | 2 | 5 | Neurology |
| Myocarditis in children | Myocarditis in children | 2 | 7 | Immunology |
| Necrotising autoimmune myopathy (NAM) | Inflammatory myopathies: polymyositis (PM), dermatomyositis (DM) and inclusion body myositis (IBM) | 3 | 5 | Neurology |
| Neonatal haemochromatosis | Neonatal haemochromatosis (NH) | 2 | 5 | Haematology |
| Newly Diagnosed Immune thrombocytopenic purpura (ITP) | Immune thrombocytopenic purpura (ITP) — adult | 3 | 5 | Haematology |
| NMOSD–AQP4 ab positive | Neuromyelitis optica spectrum disorders (NMOSD) | 3 | 7 | Neurology |
| NMOSD–MOG ab positive | Neuromyelitis optica spectrum disorders (NMOSD) | 3 | 7 | Neurology |
| NMOSD–seronegative | Neuromyelitis optica spectrum disorders (NMOSD) | 3 | 7 | Neurology |
| Non-Hodgkin lymphoma | Acquired hypogammaglobulinaemia — haematological malignancy and post HSCT | 2 | 5 | Haematology |
| Opsoclonus myoclonus ataxia | Opsoclonus-myoclonus ataxia (OMA) | 2 | 6 | Neurology |
| Other primary immunodeficiency | Primary immunodeficiency diseases (PID) with antibody deficiency | 2 | 5 | Immunology |
| Other relevant haematological malignancies | Acquired hypogammaglobulinaemia — haematological malignancy and post HSCT | 2 | 5 | Haematology |
| PANDAS/tic disorders | Paediatric autoimmune neuropsychiatric disorder associated with streptococcal infection (PANDAS) | 2 | 7 | Neurology |
| Paraneoplastic Subacute Sensory Neuropathy | Paraneoplastic Subacute Sensory Neuropathy | 3 | 8 | Neurology |
| Pemphigus foliaceus | Pemphigus foliaceus (PF) | 2 | 6 | Dermatology |
| Pemphigus vulgaris | Pemphigus vulgaris (PV) | 2 | 6 | Dermatology |
| Polymyositis | Inflammatory myopathies: polymyositis (PM), dermatomyositis (DM) and inclusion body myositis (IBM) | 2 | 5 | Neurology |
| Possible Common variable immune deficiency (CVID) - below normal serum IgG but normal serum IgA level | Primary immunodeficiency diseases (PID) with antibody deficiency | 3 | 5 | Immunology |
| Post-haemopoietic stem cell transplantation | Acquired hypogammaglobulinaemia — haematological malignancy and post HSCT | 2 | 5 | Haematology |
| Post-tranfusion purpura | Post-transfusion purpura (PTP) | 2 | 6 | Haematology |
| Post-transfusion purpura (PTP) | Post-transfusion purpura (PTP) | 3 | 6 | Haematology |
| Potassium channel antibody-associated encephalopathy | Potassium channel antibody-associated encephalopathy | 2 | 7 | Neurology |
| PR3 or MPO ANCA-positive idiopathic rapidly progressive glomerulonephritis | ANCA-positive systemic necrotising vasculitis | 2 | 6 | Immunology |
| Pure red cell aplasia | Pure red cell aplasia (PRCA) | 2 | 7 | Haematology |
| Pure white cell aplasia | Pure white cell aplasia (PWCA) | 2 | 7 | Haematology |
| Pyoderma gangrenosum | Pyoderma gangrenosum | 2 | 7 | Dermatology |
| Rasmussen syndrome | Rasmussen syndrome | 2 | 7 | Neurology |
| Relapsing remitting multiple sclerosis | Multiple sclerosis (MS) | 2 | 6 | Neurology |
| Scleromyxedema | Scleromyxedema | 2 | 7 | Neurology |
| Secondary hypogammaglobulinaemia (excluding haematological malignancies) | Secondary hypogammaglobulinaemia (including iatrogenic immunodeficiency) | 2 | 6 | Immunology |
| Sepsis | Sepsis | 2 | 8 | Immunology |
| Sero-negative autoimmune encephalitis | Antibody mediated autoimmune encephalitis (AMAE) | 3 | 6 | Neurology |
| Sero-negative limbic encephalitis | Antibody mediated autoimmune encephalitis (AMAE) | 3 | 6 | Neurology |
| Severe combined immunodeficiency (SCID) | Primary immunodeficiency diseases (PID) with antibody deficiency | 2 | 5 | Immunology |
| Severe reduction in all Ig isotypes with decreased or absent B-cells (e.g. XLA def) | Primary immunodeficiency diseases (PID) with antibody deficiency | 3 | 5 | Immunology |
| Severe reduction in at least two Ig isotypes with low/normal B-cells (e.g. CVID) | Primary immunodeficiency diseases (PID) with antibody deficiency | 3 | 5 | Immunology |
| Severe reduction in serum IgG and IgA with normal/elevated IgM (e.g. CD40L def) | Primary immunodeficiency diseases (PID) with antibody deficiency | 3 | 5 | Immunology |
| Sjögren’s syndrome | Sjögren’s syndrome | 2 | 7 | Immunology |
| Solid organ - heart | Solid organ transplantation (other than kidney) | 2 | 6 | Transplant Medicine |
| Solid organ - heart/lung | Solid organ transplantation (other than kidney) | 2 | 6 | Transplant Medicine |
| Solid organ - liver | Solid organ transplantation (other than kidney) | 2 | 6 | Transplant Medicine |
| Solid organ - lung | Solid organ transplantation (other than kidney) | 2 | 6 | Transplant Medicine |
| Solid organ - other | Solid organ transplantation (other than kidney) | 2 | 6 | Transplant Medicine |
| Specific antibody deficiency | Specific antibody deficiency (SAD) | 2 | 6 | Immunology |
| Staphylococcal TSS | Toxic shock syndrome (TSS) | 2 | 6 | Immunology |
| Stiff person syndrome | Stiff person syndrome | 2 | 5 | Neurology |
| Streptococcal TSS | Toxic shock syndrome (TSS) | 2 | 6 | Immunology |
| Subacute sensory neuropathy | Paraneoplastic neurological syndromes | 2 | 7 | Neurology |
| Susac syndrome | Susac syndrome | 2 | 7 | Immunology |
| Suspected autoimmune encephalitis | Antibody mediated autoimmune encephalitis (AMAE) | 3 | 6 | Neurology |
| Suspected autoimmune limbic encephalitis | Antibody mediated autoimmune encephalitis (AMAE) | 3 | 6 | Neurology |
| Systemic capillary leak syndrome | Systemic capillary leak syndrome (SCLS) | 2 | 7 | Haematology |
| Toxic epidermal necrolysis/Stevens–Johnson syndrome | Toxic epidermal necrolysis (TEN)/ Stevens–Johnson syndrome (SJS) | 2 | 6 | Dermatology |
| Transient hypogammaglobulinaemia of infancy | Primary immunodeficiency diseases (PID) with antibody deficiency | 2 | 5 | Immunology |
| Wegener granulomatosis | ANCA-positive systemic necrotising vasculitis | 2 | 6 | Immunology |
| Wiskott–Aldrich syndrome | Primary immunodeficiency diseases (PID) with antibody deficiency | 2 | 5 | Immunology |
| X-linked agammaglobulinaemia | Primary immunodeficiency diseases (PID) with antibody deficiency | 2 | 5 | Immunology |

## Appendix D – Dataset of Ig supply by state/territory 2018-19

| **Specific Condition** |  | **NSW** | **VIC** | **QLD** | **SA** | **WA** | **TAS** | **NT** | **ACT** | **National** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Chapter 5 – has an established therapeutic role** | | | | | | | | | | |
| Acute leukaemia | Patients | 73 | 28 | 24 | 14 | 11 | <5 |  |  | 149 |
| Average Age | 35 | 20 | 30 | 49 | 14 | 63 |  |  | 31 |
| Average Weight | 58 | 40 | 48 | 72 | 46 | 72 |  |  | 54 |
| Grams | 4,161 | 1,200 | 1,090 | 848 | 445 | 150 |  |  | 7,893 |
| Grams/Episode | 20 | 16 | 13 | 26 | 16 | 30 |  |  | 18 |
| Grams per 1,000 Population | 1 | 0 | 0 | 0 | 0 | 0 |  |  | 0 |
| Chronic Immune thrombocytopenic purpura (ITP) | Patients | 91 | 70 | 51 | 30 | 16 | <5 | <5 | <5 | 264 |
| Average Age | 56 | 56 | 57 | 56 | 54 | 35 | 63 | 35 | 56 |
| Average Weight | 80 | 78 | 80 | 76 | 78 | 79 | 90 | 75 | 79 |
| Grams | 15,893 | 8,223 | 7,426 | 3,323 | 1,468 | 955 | 180 | 295 | 37,761 |
| Grams/Episode | 46 | 60 | 35 | 57 | 51 | 68 | 90 | 98 | 47 |
| Grams per 1,000 Population | 2 | 1 | 1 | 2 | 1 | 2 | 1 | 1 | 2 |
| Chronic inflammatory demyelinating polyneuropathy | Patients | 1036 | 568 | 734 | 100 | 163 | 50 | 16 | 62 | 2,682 |
| Average Age | 65 | 64 | 63 | 64 | 61 | 63 | 58 | 61 | 64 |
| Average Weight | 82 | 83 | 83 | 80 | 83 | 86 | 80 | 81 | 83 |
| Grams | 495,909 | 293,695 | 352,554 | 42,433 | 117,902 | 27,453 | 6,808 | 22,853 | 1,359,604 |
| Grams/Episode | 40 | 41 | 28 | 40 | 45 | 43 | 52 | 41 | 37 |
| Grams per 1,000 Population | 62 | 45 | 70 | 24 | 45 | 52 | 28 | 54 | 54 |
| Chronic lymphocytic leukaemia | Patients | 664 | 400 | 421 | 103 | 105 | 42 | 9 | 34 | 1,753 |
| Average Age | 73 | 73 | 72 | 73 | 72 | 73 | 66 | 71 | 73 |
| Average Weight | 78 | 77 | 78 | 78 | 74 | 77 | 77 | 79 | 78 |
| Grams | 178,861 | 103,759 | 119,701 | 25,023 | 21,793 | 10,797 | 2,155 | 9,273 | 471,360 |
| Grams/Episode | 27 | 26 | 24 | 27 | 24 | 26 | 28 | 29 | 26 |
| Grams per 1,000 Population | 22 | 16 | 24 | 14 | 8 | 20 | 9 | 22 | 19 |
| Combined immunodeficiency generally less profound than SCID (e.g. thymoma) | Patients | <5 | <5 | <5 |  | <5 |  |  | <5 | <20 |
| Average Age | 54 | 16 | 53 |  | 63 |  |  | 35 | 38 |
| Average Weight | 51 | 39 | 50 |  | 77 |  |  | 110 | 59 |
| Grams | 153 | 333 | 130 |  | 180 |  |  | 299 | 1,094 |
| Grams/Episode | 25 | 13 | 16 |  | 30 |  |  | 43 | 21 |
| Grams per 1,000 Population | 0 | 0 | 0 |  | 0 |  |  | 1 | 0 |
| Common variable immunodeficiency disease (CVID) | Patients | 909 | 319 | 341 | 104 | 101 | 26 | 7 | 57 | 1,847 |
| Average Age | 54 | 46 | 53 | 50 | 45 | 47 | 54 | 48 | 52 |
| Average Weight | 72 | 71 | 75 | 70 | 78 | 73 | 79 | 77 | 73 |
| Grams | 308,191 | 107,955 | 125,111 | 31,855 | 33,349 | 9,622 | 2,037 | 20,989 | 639,109 |
| Grams/Episode | 24 | 24 | 25 | 24 | 24 | 27 | 52 | 23 | 24 |
| Grams per 1,000 Population | 38 | 17 | 25 | 18 | 13 | 18 | 8 | 50 | 25 |
| Dermatomyositis | Patients | 102 | 55 | 62 | 15 | 24 | <5 |  | 12 | 268 |
| Average Age | 50 | 50 | 49 | 58 | 47 | 44 |  | 46 | 50 |
| Average Weight | 67 | 70 | 71 | 73 | 78 | 70 |  | 62 | 69 |
| Grams | 33,986 | 20,076 | 25,395 | 5,368 | 8,653 | 210 |  | 4,293 | 97,980 |
| Grams/Episode | 34 | 40 | 25 | 36 | 27 | 70 |  | 34 | 31 |
| Grams per 1,000 Population | 4 | 3 | 5 | 3 | 3 | 0 |  | 10 | 4 |
| Guillain–Barré syndrome | Patients | 298 | 181 | 146 | 40 | 74 | 11 | 6 | 15 | 770 |
| Average Age | 51 | 53 | 52 | 58 | 49 | 50 | 37 | 52 | 52 |
| Average Weight | 80 | 76 | 79 | 78 | 80 | 80 | 63 | 82 | 79 |
| Grams | 51,590 | 27,210 | 22,009 | 5,778 | 10,820 | 1,590 | 690 | 2,375 | 122,061 |
| Grams/Episode | 36 | 39 | 25 | 42 | 32 | 48 | 30 | 68 | 34 |
| Grams per 1,000 Population | 6 | 4 | 4 | 3 | 4 | 3 | 3 | 6 | 5 |
| Inclusion body myositis | Patients | 68 | 52 | 44 | 17 | 5 | <5 |  | <5 | 191 |
| Average Age | 72 | 71 | 69 | 72 | 69 | 74 |  | 70 | 71 |
| Average Weight | 81 | 82 | 78 | 78 | 68 | 72 |  | 78 | 80 |
| Grams | 22,553 | 27,841 | 18,885 | 6,703 | 840 | 1,170 |  | 1,545 | 79,536 |
| Grams/Episode | 35 | 41 | 29 | 33 | 21 | 27 |  | 37 | 35 |
| Grams per 1,000 Population | 3 | 4 | 4 | 4 | 0 | 2 |  | 4 | 3 |
| ITP associated with HIV | Patients |  | <5 | <5 |  |  |  |  |  | <8 |
| Average Age |  | 32 | 34 |  |  |  |  |  | 33 |
| Average Weight |  | 72 | 79 |  |  |  |  |  | 76 |
| Grams |  | 145 | 725 |  |  |  |  |  | 870 |
| Grams/Episode |  | 73 | 104 |  |  |  |  |  | 97 |
| Grams per 1,000 Population |  | 0 | 0 |  |  |  |  |  | 0 |
| ITP in pregnancy | Patients | 16 | 8 | 7 | <5 | <5 |  |  |  | <40 |
| Average Age | 29 | 28 | 31 | 33 | 34 |  |  |  | 30 |
| Average Weight | 87 | 94 | 79 | 71 | 75 |  |  |  | 86 |
| Grams | 5,345 | 1,438 | 633 | 70 | 333 |  |  |  | 7,818 |
| Grams/Episode | 67 | 76 | 19 | 70 | 48 |  |  |  | 56 |
| Grams per 1,000 | 1 | 0 | 0 | 0 | 0 |  |  |  | 0 |
| ITP in specific circumstances (surgery, other therapy contraindicated, chronic ITP, concurrent risk factors) | Patients | 72 | 31 | 50 | 19 | 5 | 5 | <5 | <5 | <188 |
| Average Age | 65 | 67 | 61 | 62 | 68 | 75 | 68 | 46 | 64 |
| Average Weight | 80 | 74 | 81 | 80 | 87 | 89 | 54 | 76 | 80 |
| Grams | 14,460 | 4,045 | 11,995 | 3,220 | 1,680 | 500 | 55 | 140 | 36,095 |
| Grams/Episode | 57 | 40 | 35 | 50 | 34 | 83 | 55 | 70 | 44 |
| Grams per 1,000 Population | 2 | 1 | 2 | 2 | 1 | 1 | 0 | 0 | 1 |
| ITP refractory acute | Patients | 127 | 107 | 82 | 43 | 22 | 12 |  | 7 | 399 |
| Average Age | 60 | 57 | 56 | 58 | 55 | 64 |  | 52 | 58 |
| Average Weight | 77 | 77 | 82 | 79 | 77 | 90 |  | 97 | 79 |
| Grams | 23,927 | 15,580 | 15,970 | 8,765 | 2,517 | 1,545 |  | 1,620 | 69,924 |
| Grams/Episode | 52 | 54 | 36 | 61 | 61 | 64 |  | 81 | 49 |
| Grams per 1,000 Population | 3 | 2 | 3 | 5 | 1 | 3 |  | 4 | 3 |
| ITP with life-threatening haemorrhage or potential life-threatening haemorrhage | Patients | 51 | 42 | 29 | 28 | 6 | <5 |  | <5 | <168 |
| Average Age | 55 | 61 | 55 | 63 | 73 | 53 |  | 73 | 59 |
| Average Weight | 79 | 78 | 86 | 87 | 87 | 81 |  | 80 | 82 |
| Grams | 8,640 | 4,585 | 4,320 | 4,250 | 605 | 460 |  | 340 | 23,200 |
| Grams/Episode | 56 | 59 | 44 | 71 | 67 | 92 |  | 68 | 57 |
| Grams per 1,000 Population | 1 | 1 | 1 | 2 | 0 | 1 |  | 1 | 1 |
| Kawasaki disease | Patients | 131 | 125 | 62 | 24 | 32 | 9 | 5 | <5 | <395 |
| Average Age | 3 | 3 | 3 | 4 | 3 | 4 | 3 | 2 | 3 |
| Average Weight | 17 | 15 | 16 | 17 | 17 | 19 | 15 | 13 | 16 |
| Grams | 5,418 | 4,490 | 2,383 | 883 | 1,255 | 335 | 178 | 53 | 14,993 |
| Grams/Episode | 29 | 25 | 16 | 22 | 31 | 30 | 30 | 26 | 24 |
| Grams per 1,000 Population | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 |
| Lambert–Eaton myasthenic syndrome | Patients | 10 | 6 | 9 | <5 | <5 |  |  | <5 | <38 |
| Average Age | 59 | 58 | 63 | 69 | 77 |  |  | 74 | 61 |
| Average Weight | 81 | 69 | 76 | 54 | 65 |  |  | 64 | 75 |
| Grams | 5,245 | 3,445 | 4,248 | 150 | 700 |  |  | 780 | 14,568 |
| Grams/Episode | 44 | 46 | 25 | 25 | 47 |  |  | 60 | 37 |
| Grams per 1,000 Population | 1 | 1 | 1 | 0 | 0 |  |  | 2 | 1 |
| Lymphoproliferative syndromes (e.g. XLP1, XLP2, CD27 def) | Patients |  | <5 |  |  |  |  |  |  | <5 |
| Average Age |  | 27 |  |  |  |  |  |  | 27 |
| Average Weight |  | 76 |  |  |  |  |  |  | 76 |
| Grams |  | 348 |  |  |  |  |  |  | 348 |
| Grams/Episode |  | 23 |  |  |  |  |  |  | 23 |
| Grams per 1,000 Population |  | 0 |  |  |  |  |  |  | 0 |
| Memory B cell deficiency secondary to haemopoietic stem cell transplantation (HSCT) | Patients | 21 | 24 | 20 | 9 | 6 | <5 |  | <5 | <88 |
| Average Age | 35 | 44 | 44 | 53 | 41 | 52 |  | 7 | 42 |
| Average Weight | 53 | 64 | 60 | 81 | 69 | 108 |  | 23 | 63 |
| Grams | 1,588 | 1,967 | 2,030 | 873 | 380 | 455 |  | 50 | 7,342 |
| Grams/Episode | 19 | 20 | 16 | 19 | 29 | 38 |  | 10 | 19 |
| Grams per 1,000 Population | 0 | 0 | 0 | 1 | 0 | 1 |  | 0 | 0 |
| Multifocal motor neuropathy with or without persistent conduction block | Patients | 230 | 112 | 136 | 46 | 43 | 10 | 9 | 20 | 596 |
| Average Age | 60 | 56 | 58 | 61 | 59 | 63 | 58 | 58 | 59 |
| Average Weight | 80 | 80 | 81 | 82 | 81 | 81 | 96 | 87 | 81 |
| Grams | 119,221 | 70,127 | 77,460 | 35,315 | 42,390 | 6,658 | 7,760 | 13,945 | 372,875 |
| Grams/Episode | 44 | 46 | 31 | 47 | 53 | 39 | 83 | 61 | 42 |
| Grams per 1,000 Population | 15 | 11 | 15 | 20 | 16 | 13 | 32 | 33 | 15 |
| Multiple myeloma | Patients | 601 | 350 | 448 | 135 | 53 | 40 | <5 | 15 | 1,638 |
| Average Age | 71 | 70 | 71 | 69 | 68 | 68 | 67 | 71 | 71 |
| Average Weight | 77 | 79 | 77 | 82 | 81 | 83 | 99 | 76 | 78 |
| Grams | 143,872 | 86,293 | 120,932 | 29,595 | 8,812 | 11,721 | 1,160 | 3,402 | 405,785 |
| Grams/Episode | 29 | 26 | 23 | 28 | 24 | 30 | 39 | 23 | 26 |
| Grams per 1,000 Population | 18 | 13 | 24 | 17 | 3 | 22 | 5 | 8 | 16 |
| Myasthenia gravis | Patients | 392 | 337 | 363 | 50 | 88 | 14 | <5 | 24 | 1,253 |
| Average Age | 62 | 63 | 62 | 67 | 60 | 54 | 52 | 57 | 62 |
| Average Weight | 81 | 81 | 83 | 81 | 79 | 74 | 59 | 81 | 81 |
| Grams | 163,720 | 150,429 | 163,495 | 13,743 | 40,575 | 4,780 | 275 | 12,788 | 549,804 |
| Grams/Episode | 35 | 39 | 25 | 34 | 35 | 30 | 25 | 44 | 32 |
| Grams per 1,000 Population | 20 | 23 | 32 | 8 | 16 | 9 | 1 | 30 | 22 |
| Necrotising autoimmune myopathy (NAM) | Patients | 14 | 11 | 8 | 6 | 7 | <5 | <5 | <5 | <60 |
| Average Age | 65 | 61 | 57 | 66 | 62 | 56 | 68 | 74 | 63 |
| Average Weight | 75 | 77 | 73 | 72 | 86 | 98 | 63 | 44 | 76 |
| Grams | 4,325 | 2,185 | 1,720 | 1,563 | 1,648 | 885 | 345 | 260 | 12,930 |
| Grams/Episode | 31 | 40 | 19 | 41 | 36 | 98 | 31 | 29 | 33 |
| Grams per 1,000 Population | 1 | 0 | 0 | 1 | 1 | 2 | 1 | 1 | 1 |
| Neonatal haemochromatosis | Patients | <5 | <5 | <5 |  | <5 |  |  |  | <16 |
| Average Age | 36 | 17 | 0 |  | 0 |  |  |  | 17 |
| Average Weight | 97 | 31 | 2 |  | 2 |  |  |  | 40 |
| Grams | 1,330 | 1,388 | 8 |  | 5 |  |  |  | 2,730 |
| Grams/Episode | 95 | 43 | 3 |  | 3 |  |  |  | 54 |
| Grams per 1,000 Population | 0 | 0 | 0 |  | 0 |  |  |  | 0 |
| Newly Diagnosed Immune thrombocytopenic purpura (ITP) | Patients | 139 | 146 | 111 | 43 | 23 | 6 | <5 | 7 | <484 |
| Average Age | 59 | 60 | 57 | 61 | 53 | 52 | 37 | 45 | 58 |
| Average Weight | 76 | 75 | 78 | 82 | 80 | 82 | 84 | 75 | 77 |
| Grams | 17,570 | 15,860 | 13,883 | 5,743 | 1,998 | 775 | 358 | 1,345 | 57,530 |
| Grams/Episode | 53 | 55 | 32 | 51 | 59 | 111 | 72 | 90 | 46 |
| Grams per 1,000 Population | 2 | 2 | 3 | 3 | 1 | 1 | 1 | 3 | 2 |
| Non-Hodgkin lymphoma | Patients | 560 | 363 | 621 | 134 | 64 | 47 | 11 | 23 | 1,808 |
| Average Age | 70 | 68 | 68 | 69 | 71 | 66 | 66 | 62 | 69 |
| Average Weight | 76 | 77 | 77 | 78 | 77 | 82 | 71 | 75 | 77 |
| Grams | 145,387 | 90,281 | 169,983 | 29,018 | 14,217 | 14,656 | 1,632 | 4,649 | 469,822 |
| Grams/Episode | 28 | 25 | 23 | 24 | 25 | 29 | 27 | 22 | 25 |
| Grams per 1,000 Population | 18 | 14 | 34 | 17 | 5 | 28 | 7 | 11 | 19 |
| Other primary immunodeficiency | Patients | 44 | 49 | 16 | 10 | 10 | <5 | <5 | 5 | <144 |
| Average Age | 44 | 42 | 25 | 31 | 51 | 39 | 47 | 24 | 40 |
| Average Weight | 59 | 56 | 45 | 56 | 55 | 55 | 68 | 56 | 56 |
| Grams | 11,134 | 12,731 | 3,399 | 2,757 | 2,558 | 1,325 | 513 | 960 | 35,377 |
| Grams/Episode | 21 | 23 | 13 | 19 | 20 | 28 | 21 | 19 | 20 |
| Grams per 1,000 Population | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 2 | 1 |
| Other relevant haematological malignancies | Patients | 263 | 81 | 144 | 29 | 37 | 10 | <5 | <5 | 561 |
| Average Age | 62 | 55 | 61 | 56 | 44 | 69 | 65 | 71 | 60 |
| Average Weight | 71 | 66 | 70 | 76 | 66 | 79 | 80 | 91 | 70 |
| Grams | 49,937 | 15,794 | 35,762 | 5,989 | 6,600 | 2,883 | 185 | 623 | 117,770 |
| Grams/Episode | 26 | 23 | 20 | 25 | 22 | 28 | 37 | 35 | 24 |
| Grams per 1,000 Population | 6 | 2 | 7 | 3 | 3 | 5 | 1 | 1 | 5 |
| Polymyositis | Patients | 201 | 89 | 133 | 37 | 18 | 6 | <5 | 12 | 495 |
| Average Age | 64 | 61 | 61 | 67 | 52 | 77 | 57 | 57 | 63 |
| Average Weight | 77 | 80 | 81 | 76 | 76 | 91 | 73 | 74 | 78 |
| Grams | 69,898 | 37,777 | 59,545 | 14,495 | 10,640 | 3,225 | 750 | 4,325 | 200,655 |
| Grams/Episode | 34 | 40 | 29 | 41 | 33 | 44 | 39 | 30 | 34 |
| Grams per 1,000 Population | 9 | 6 | 12 | 8 | 4 | 6 | 3 | 10 | 8 |
| Possible Common variable immune deficiency (CVID) - below normal serum IgG but normal serum IgA level | Patients | 20 | 15 | 7 | <5 | 6 | <5 | <5 | <5 | <65 |
| Average Age | 51 | 43 | 57 | 18 | 37 | 50 | 13 | 31 | 46 |
| Average Weight | 74 | 58 | 73 | 69 | 85 | 87 | 34 | 58 | 70 |
| Grams | 3,980 | 1,807 | 665 | 91 | 483 | 372 | 120 | 284 | 7,801 |
| Grams/Episode | 29 | 23 | 17 | 13 | 17 | 34 | 15 | 24 | 24 |
| Grams per 1,000 Population | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 |
| Post-haemopoietic stem cell transplantation | Patients | 112 | 81 | 87 | 23 | 10 | 8 |  | 6 | 323 |
| Average Age | 48 | 42 | 54 | 49 | 32 | 32 |  | 54 | 48 |
| Average Weight | 71 | 65 | 74 | 73 | 58 | 56 |  | 66 | 70 |
| Grams | 21,289 | 16,208 | 21,613 | 5,096 | 1,820 | 943 |  | 1,093 | 68,060 |
| Grams/Episode | 25 | 21 | 18 | 21 | 22 | 15 |  | 21 | 21 |
| Grams per 1,000 Population | 3 | 2 | 4 | 3 | 1 | 2 |  | 3 | 3 |
| Severe combined immunodeficiency (SCID) | Patients | 11 | 9 | 17 | <5 | <5 |  |  |  | <47 |
| Average Age | 20 | 15 | 22 | 14 | 32 |  |  |  | 20 |
| Average Weight | 38 | 35 | 41 | 47 | 86 |  |  |  | 42 |
| Grams | 3,706 | 1,821 | 3,647 | 582 | 740 |  |  |  | 10,496 |
| Grams/Episode | 22 | 20 | 16 | 12 | 44 |  |  |  | 19 |
| Grams per 1,000 Population | 0 | 0 | 1 | 0 | 0 |  |  |  | 0 |
| Severe reduction in all Ig isotypes with decreased or absent B-cells (e.g. XLA def) | Patients | <5 |  |  |  |  |  | <5 |  | <8 |
| Average Age | 27 |  |  |  |  |  | 28 |  | 30 |
| Average Weight | 55 |  |  |  |  |  | 70 |  | 62 |
| Grams | 532 |  |  |  |  |  | 294 |  | 826 |
| Grams/Episode | 20 |  |  |  |  |  | 74 |  | 25 |
| Grams per 1,000 Population | 0 |  |  |  |  |  | 1 |  | 0 |
| Severe reduction in at least two Ig isotypes with low/normal B-cells (e.g. CVID) | Patients | 22 | 19 | 13 | 5 | <5 | <5 | <5 | <5 | <83 |
| Average Age | 41 | 49 | 44 | 36 | 51 | 75 | 61 | 23 | 43 |
| Average Weight | 66 | 77 | 73 | 76 | 73 | 89 | 50 | 62 | 71 |
| Grams | 3,163 | 2,670 | 1,450 | 1,247 | 478 | 175 | 120 | 355 | 9,656 |
| Grams/Episode | 21 | 14 | 18 | 35 | 27 | 35 | 13 | 25 | 19 |
| Grams per 1,000 Population | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| Severe reduction in serum IgG and IgA with normal/elevated IgM (e.g. CD40L def) | Patients | <5 | <5 |  |  |  |  |  |  | <8 |
| Average Age | 33 | 6 |  |  |  |  |  |  | 24 |
| Average Weight | 70 | 24 |  |  |  |  |  |  | 55 |
| Grams | 258 | 50 |  |  |  |  |  |  | 308 |
| Grams/Episode | 23 | 10 |  |  |  |  |  |  | 19 |
| Grams per 1,000 Population | 0 | 0 |  |  |  |  |  |  | 0 |
| Stiff person syndrome | Patients | 48 | 12 | 19 | <5 | 5 | <5 | <5 | <5 | <100 |
| Average Age | 59 | 50 | 59 | 62 | 61 | 36 | 31 | 49 | 57 |
| Average Weight | 78 | 69 | 78 | 75 | 79 | 70 | 62 | 68 | 76 |
| Grams | 27,712 | 5,255 | 12,243 | 390 | 2,500 | 2,140 | 55 | 930 | 51,224 |
| Grams/Episode | 44 | 51 | 33 | 30 | 27 | 46 | 28 | 30 | 39 |
| Grams per 1,000 Population | 3 | 1 | 2 | 0 | 1 | 4 | 0 | 2 | 2 |
| Transient hypogammaglobulinaemia of infancy | Patients | <5 | <5 | <5 |  |  |  |  |  | <12 |
| Average Age | 2 | 0 | 49 |  |  |  |  |  | 13 |
| Average Weight | 13 | 8 | 60 |  |  |  |  |  | 22 |
| Grams | 13 | 27 | 293 |  |  |  |  |  | 332 |
| Grams/Episode | 3 | 2 | 23 |  |  |  |  |  | 11 |
| Grams per 1,000 Population | 0 | 0 | 0 |  |  |  |  |  | 0 |
| Wiskott–Aldrich syndrome | Patients | <5 | <5 |  | <5 | <5 |  | <5 |  | <20 |
| Average Age | 0 | 1 |  | 15 | 34 |  | 15 |  | 14 |
| Average Weight | 6 | 12 |  | 28 | 69 |  | 28 |  | 32 |
| Grams | 6 | 50 |  | 20 | 730 |  | 40 |  | 845 |
| Grams/Episode | 3 | 4 |  | 10 | 24 |  | 10 |  | 16 |
| Grams per 1,000 Population | 0 | 0 |  | 0 | 0 |  | 0 |  | 0 |
| X-linked agammaglobulinaemia | Patients | 40 | 45 | 16 | 7 | 7 |  | <5 | <5 | <123 |
| Average Age | 31 | 34 | 26 | 18 | 17 |  | 25 | 13 | 30 |
| Average Weight | 63 | 63 | 55 | 54 | 50 |  | 50 | 57 | 61 |
| Grams | 13,542 | 16,661 | 4,855 | 2,324 | 1,893 |  | 665 | 282 | 40,221 |
| Grams/Episode | 27 | 23 | 19 | 23 | 21 |  | 17 | 15 | 23 |
| Grams per 1,000 Population | 2 | 3 | 1 | 1 | 1 |  | 3 | 1 | 2 |
| **Chapter 5 Total** | **Patients** | **6,263** | **3,632** | **4,119** | **1,035** | **928** | **317** | **89** | **321** | **16,522** |
| **Average Age** | **62** | **58** | **61** | **61** | **55** | **60** | **52** | **56** | **60** |
| **Average Weight** | **76** | **74** | **77** | **76** | **75** | **78** | **72** | **77** | **76** |
| **Grams** | **1,976,508** | **1,153,743** | **1,405,551** | **287,502** | **341,002** | **105,778** | **26,373** | **110,141** | **5,406,598** |
| **Grams/Episode** | **32** | **32** | **26** | **32** | **34** | **34** | **44** | **34** | **30** |
| **Grams per 1,000 Population** | **246** | **177** | **278** | **165** | **131** | **199** | **107** | **260** | **215** |
| **Chapter 6 – has an emerging therapeutic role** | | | | | | | | | | |
| Acute disseminated encephalomyelitis | Patients | 29 | 13 | 23 | <5 | <5 | <5 | <5 | <5 | <90 |
| Average Age | 39 | 19 | 20 | 2 | 11 | 15 | 7 | 39 | 27 |
| Average Weight | 61 | 48 | 46 | 14 | 33 | 56 | 31 | 112 | 52 |
| Grams | 6,730 | 3,183 | 3,153 | 73 | 330 | 113 | 320 | 190 | 14,090 |
| Grams/Episode | 31 | 35 | 22 | 15 | 21 | 56 | 80 | 48 | 29 |
| Grams per 1,000 Population | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 |
| Autoimmune haemolytic anaemia | Patients | 29 | 34 | 27 | 10 | 9 | <5 | <5 |  | <119 |
| Average Age | 58 | 60 | 58 | 72 | 60 | 27 | 49 |  | 59 |
| Average Weight | 72 | 68 | 75 | 75 | 80 | 56 | 54 |  | 72 |
| Grams | 5,388 | 4,005 | 4,158 | 3,020 | 700 | 735 | 368 |  | 18,373 |
| Grams/Episode | 40 | 54 | 31 | 47 | 47 | 43 | 26 |  | 40 |
| Grams per 1,000 Population | 1 | 1 | 1 | 2 | 0 | 1 | 1 |  | 1 |
| Bullous pemphigoid | Patients | 13 | 13 | 10 | <5 | <5 | <5 |  | <5 | <51 |
| Average Age | 75 | 72 | 65 | 68 | 84 | 28 |  | 66 | 71 |
| Average Weight | 94 | 92 | 91 | 100 | 82 | 80 |  | 64 | 91 |
| Grams | 5,413 | 5,345 | 12,190 | 590 | 695 | 160 |  | 130 | 24,523 |
| Grams/Episode | 58 | 75 | 47 | 84 | 58 | 80 |  | 26 | 55 |
| Grams per 1,000 Population | 1 | 1 | 2 | 0 | 0 | 0 |  | 0 | 1 |
| Churg-Strauss syndrome | Patients |  |  |  |  | <5 |  |  |  | <5 |
| Average Age |  |  |  |  | 62 |  |  |  | 62 |
| Average Weight |  |  |  |  | 60 |  |  |  | 60 |
| Grams |  |  |  |  | 705 |  |  |  | 705 |
| Grams/Episode |  |  |  |  | 24 |  |  |  | 24 |
| Grams per 1,000 Population |  |  |  |  | 0 |  |  |  | 0 |
| Cicatricial pemphigoid/ mucous membrane pemphigoid | Patients | <5 | <5 | 12 | <5 | <5 | <5 |  | <5 | <38 |
| Average Age | 56 | 66 | 73 | 63 | 62 | 62 |  | 61 | 67 |
| Average Weight | 72 | 105 | 82 | 98 | 85 | 61 |  | 102 | 84 |
| Grams | 2,770 | 2,220 | 7,000 | 620 | 2,665 | 2,040 |  | 2,715 | 20,030 |
| Grams/Episode | 62 | 93 | 34 | 78 | 35 | 102 |  | 82 | 48 |
| Grams per 1,000 Population | 0 | 0 | 1 | 0 | 1 | 4 |  | 6 | 1 |
| Encephalitis associated with antibodies to CASPR2 | Patients | 6 |  | <5 |  |  |  |  |  | <11 |
| Average Age | 50 |  | 17 |  |  |  |  |  | 46 |
| Average Weight | 74 |  | 65 |  |  |  |  |  | 73 |
| Grams | 2,010 |  | 305 |  |  |  |  |  | 2,315 |
| Grams/Episode | 30 |  | 22 |  |  |  |  |  | 28 |
| Grams per 1,000 Population | 0 |  | 0 |  |  |  |  |  | 0 |
| Encephalitis associated with antibodies to GABA (A or B) receptor | Patients | <5 | <5 | <5 |  | <5 |  |  |  | <16 |
| Average Age | 64 | 60 | 80 |  | 53 |  |  |  | 64 |
| Average Weight | 98 | 50 | 56 |  | 69 |  |  |  | 78 |
| Grams | 475 | 20 | 113 |  | 140 |  |  |  | 748 |
| Grams/Episode | 40 | 20 | 11 |  | 28 |  |  |  | 27 |
| Grams per 1,000 Population | 0 | 0 | 0 |  | 0 |  |  |  | 0 |
| Encephalitis associated with antibodies to glycine receptor | Patients | <5 | <5 | <5 |  |  |  |  |  | <12 |
| Average Age | 47 | 2 | 30 |  |  |  |  |  | 26 |
| Average Weight | 42 | 16 | 50 |  |  |  |  |  | 36 |
| Grams | 15 | 15 | 20 |  |  |  |  |  | 50 |
| Grams/Episode | 15 | 15 | 20 |  |  |  |  |  | 17 |
| Grams per 1,000 Population | 0 | 0 | 0 |  |  |  |  |  | 0 |
| Encephalitis associated with antibodies to LGI1 | Patients | <5 | <5 | <5 |  |  |  |  |  | <8 |
| Average Age | 68 | 56 | 51 |  |  |  |  |  | 61 |
| Average Weight | 80 | 81 | 85 |  |  |  |  |  | 82 |
| Grams | 938 | 325 | 425 |  |  |  |  |  | 1,688 |
| Grams/Episode | 27 | 33 | 39 |  |  |  |  |  | 30 |
| Grams per 1,000 Population | 0 | 0 | 0 |  |  |  |  |  | 0 |
| Encephalitis associated with antibodies to NMDA receptor | Patients | 16 | 18 | 7 | <5 | <5 | <5 | <5 | <5 | <64 |
| Average Age | 31 | 30 | 29 | 54 | 26 | 2 | 32 | 43 | 31 |
| Average Weight | 65 | 54 | 76 | 78 | 85 | 12 | 90 | 75 | 65 |
| Grams | 2,993 | 2,090 | 1,138 | 705 | 665 | 35 | 180 | 150 | 7,955 |
| Grams/Episode | 30 | 26 | 19 | 37 | 35 | 18 | 36 | 150 | 28 |
| Grams per 1,000 Population | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| Encephalitis associated with antibodies to VGKC | Patients | <5 | 5 | <5 |  |  |  | <5 |  | <16 |
| Average Age | 54 | 74 | 39 |  |  |  | 83 |  | 59 |
| Average Weight | 105 | 83 | 68 |  |  |  | 70 |  | 82 |
| Grams | 610 | 670 | 575 |  |  |  | 115 |  | 1,970 |
| Grams/Episode | 47 | 32 | 14 |  |  |  | 23 |  | 25 |
| Grams per 1,000 Population | 0 | 0 | 0 |  |  |  | 0 |  | 0 |
| Evans syndrome | Patients | <5 | 7 | <5 | <5 | <5 | <5 |  |  | <24 |
| Average Age | 63 | 34 | 60 | 34 | 77 | 33 |  |  | 47 |
| Average Weight | 88 | 48 | 93 | 60 | 84 | 133 |  |  | 72 |
| Grams | 805 | 738 | 670 | 60 | 65 | 235 |  |  | 2,573 |
| Grams/Episode | 73 | 46 | 45 | 60 | 65 | 78 |  |  | 55 |
| Grams per 1,000 Population | 0 | 0 | 0 | 0 | 0 | 0 |  |  | 0 |
| Feto-maternal/neonatal alloimmune thrombocytopenia (Antenatal) | Patients | 6 | 5 | <5 | <5 | <5 |  |  |  | <28 |
| Average Age | 31 | 31 | 32 | 41 | 36 |  |  |  | 33 |
| Average Weight | 80 | 86 | 76 | 53 | 76 |  |  |  | 79 |
| Grams | 3,498 | 3,990 | 2,798 | 473 | 2,890 |  |  |  | 13,648 |
| Grams/Episode | 70 | 77 | 30 | 36 | 60 |  |  |  | 54 |
| Grams per 1,000 Population | 0 | 1 | 1 | 0 | 1 |  |  |  | 1 |
| Feto-maternal/neonatal alloimmune thrombocytopenia (Neonatal) | Patients | 12 | 9 | 7 | <5 | <5 | <5 |  |  | <43 |
| Average Age | 0 | 0 | 13 | 15 | 0 | 0 |  |  | 4 |
| Average Weight | 3 | 3 | 33 | 28 | 3 | 4 |  |  | 11 |
| Grams | 70 | 45 | 3,530 | 830 | 18 | 5 |  |  | 4,498 |
| Grams/Episode | 3 | 3 | 56 | 44 | 2 | 3 |  |  | 35 |
| Grams per 1,000 Population | 0 | 0 | 1 | 0 | 0 | 0 |  |  | 0 |
| Haemophagocytic lymphohistiocytosis | Patients | 6 | 12 | 11 |  |  |  |  |  | 29 |
| Average Age | 55 | 38 | 48 |  |  |  |  |  | 46 |
| Average Weight | 65 | 62 | 58 |  |  |  |  |  | 61 |
| Grams | 545 | 1,028 | 1,963 |  |  |  |  |  | 3,535 |
| Grams/Episode | 50 | 41 | 34 |  |  |  |  |  | 38 |
| Grams per 1,000 Population | 0 | 0 | 0 |  |  |  |  |  | 0 |
| Haemophagocytic syndrome | Patients | 10 | 6 | 5 |  | <5 |  |  |  | <27 |
| Average Age | 44 | 56 | 70 |  | 23 |  |  |  | 52 |
| Average Weight | 53 | 68 | 65 |  | 55 |  |  |  | 60 |
| Grams | 1,390 | 1,110 | 730 |  | 110 |  |  |  | 3,340 |
| Grams/Episode | 50 | 79 | 33 |  | 18 |  |  |  | 48 |
| Grams per 1,000 Population | 0 | 0 | 0 |  | 0 |  |  |  | 0 |
| IgG subclass deficiency (existing authorisation) | Patients | 8 | 16 | <5 | <5 | <5 | <5 |  |  | <46 |
| Average Age | 69 | 67 | 55 | 67 | 62 | 62 |  |  | 66 |
| Average Weight | 99 | 75 | 65 | 81 | 73 | 63 |  |  | 80 |
| Grams | 3,284 | 6,105 | 833 | 1,195 | 1,210 | 825 |  |  | 13,452 |
| Grams/Episode | 22 | 24 | 15 | 29 | 24 | 25 |  |  | 23 |
| Grams per 1,000 Population | 0 | 1 | 0 | 1 | 0 | 2 |  |  | 1 |
| IgM para-proteinaemic neuropathy | Patients | 29 | 16 | 23 | <5 | <5 | 5 |  | <5 | <91 |
| Average Age | 74 | 74 | 66 | 65 | 75 | 69 |  | 73 | 72 |
| Average Weight | 81 | 83 | 90 | 85 | 75 | 89 |  | 69 | 83 |
| Grams | 14,168 | 5,538 | 12,179 | 510 | 3,018 | 1,520 |  | 343 | 37,274 |
| Grams/Episode | 39 | 38 | 30 | 32 | 51 | 34 |  | 34 | 36 |
| Grams per 1,000 Population | 2 | 1 | 2 | 0 | 1 | 3 |  | 1 | 1 |
| ITP in children | Patients | 33 | 49 | 33 | 9 | 5 | <5 |  | <5 | <142 |
| Average Age | 6 | 5 | 6 | 8 | 4 | 6 |  | 10 | 6 |
| Average Weight | 24 | 24 | 28 | 39 | 18 | 24 |  | 46 | 26 |
| Grams | 3,237 | 3,438 | 1,153 | 903 | 218 | 273 |  | 173 | 9,392 |
| Grams/Episode | 26 | 21 | 14 | 20 | 18 | 34 |  | 19 | 21 |
| Grams per 1,000 Population | 0 | 1 | 0 | 1 | 0 | 1 |  | 0 | 0 |
| Kidney transplantation post-transplant | Patients | 112 | 219 | 41 | 15 | 30 | 20 | 5 | <5 | <449 |
| Average Age | 46 | 50 | 49 | 46 | 51 | 46 | 42 | 48 | 48 |
| Average Weight | 75 | 76 | 76 | 68 | 75 | 78 | 72 | 70 | 76 |
| Grams | 16,435 | 71,405 | 11,212 | 2,158 | 4,933 | 10,210 | 730 | 738 | 117,820 |
| Grams/Episode | 23 | 29 | 14 | 22 | 39 | 49 | 16 | 41 | 26 |
| Grams per 1,000 Population | 2 | 11 | 2 | 1 | 2 | 19 | 3 | 2 | 5 |
| Kidney transplantation pre-transplant | Patients | 21 | 8 | <5 | <5 | <5 |  |  |  | <47 |
| Average Age | 44 | 64 | 39 | 54 | 47 |  |  |  | 49 |
| Average Weight | 71 | 82 | 60 | 86 | 57 |  |  |  | 73 |
| Grams | 1,860 | 320 | 93 | 425 | 343 |  |  |  | 3,040 |
| Grams/Episode | 29 | 13 | 31 | 30 | 57 |  |  |  | 27 |
| Grams per 1,000 Population | 0 | 0 | 0 | 0 | 0 |  |  |  | 0 |
| Macrophage activation syndrome | Patients | <5 | 5 | <5 |  |  |  |  |  | <13 |
| Average Age | 7 | 53 | 69 |  |  |  |  |  | 49 |
| Average Weight | 34 | 67 | 68 |  |  |  |  |  | 62 |
| Grams | 68 | 690 | 180 |  |  |  |  |  | 938 |
| Grams/Episode | 68 | 53 | 30 |  |  |  |  |  | 47 |
| Grams per 1,000 Population | 0 | 0 | 0 |  |  |  |  |  | 0 |
| Microscopic polyangiitis | Patients |  |  | <5 |  | <5 |  |  |  | <8 |
| Average Age |  |  | 67 |  | 39 |  |  |  | 48 |
| Average Weight |  |  | 62 |  | 55 |  |  |  | 57 |
| Grams |  |  | 125 |  | 1,385 |  |  |  | 1,510 |
| Grams/Episode |  |  | 25 |  | 37 |  |  |  | 36 |
| Grams per 1,000 Population |  |  | 0 |  | 1 |  |  |  | 0 |
| Multiple sclerosis - severe relapse with no response to high dose methylprednisolone | Patients | 7 |  | <5 |  |  |  |  |  | <12 |
| Average Age | 47 |  | 34 |  |  |  |  |  | 44 |
| Average Weight | 90 |  | 64 |  |  |  |  |  | 83 |
| Grams | 1,750 |  | 370 |  |  |  |  |  | 2,120 |
| Grams/Episode | 33 |  | 46 |  |  |  |  |  | 35 |
| Grams per 1,000 Population | 0 |  | 0 |  |  |  |  |  | 0 |
| Multiple sclerosis in pregnancy and the immediate post-partum period | Patients | <5 | <5 |  |  |  |  |  |  | <8 |
| Average Age | 36 | 39 |  |  |  |  |  |  | 38 |
| Average Weight | 100 | 70 |  |  |  |  |  |  | 77 |
| Grams | 80 | 578 |  |  |  |  |  |  | 658 |
| Grams/Episode | 40 | 53 |  |  |  |  |  |  | 51 |
| Grams per 1,000 | 0 | 0 |  |  |  |  |  |  | 0 |
| Multiple sclerosis in young patients severe/relapsing/remitting in whom other therapies have failed | Patients | 11 | <5 | <5 |  |  |  |  | <5 | <24 |
| Average Age | 44 | 44 | 66 |  |  |  |  | 44 | 46 |
| Average Weight | 74 | 66 | 83 |  |  |  |  | 59 | 72 |
| Grams | 3,203 | 575 | 515 |  |  |  |  | 348 | 4,640 |
| Grams/Episode | 31 | 29 | 30 |  |  |  |  | 23 | 30 |
| Grams per 1,000 Population | 0 | 0 | 0 |  |  |  |  | 1 | 0 |
| Opsoclonus myoclonus ataxia | Patients | 12 | <5 | <5 | <5 | <5 | <5 |  |  | <40 |
| Average Age | 26 | 23 | 46 | 44 | 14 | 61 |  |  | 28 |
| Average Weight | 42 | 30 | 46 | 69 | 38 | 85 |  |  | 43 |
| Grams | 2,283 | 603 | 195 | 1,405 | 240 | 170 |  |  | 4,895 |
| Grams/Episode | 23 | 17 | 22 | 70 | 17 | 57 |  |  | 27 |
| Grams per 1,000 Population | 0 | 0 | 0 | 1 | 0 | 0 |  |  | 0 |
| Pemphigus foliaceus | Patients | <5 | <5 | <5 | <5 |  |  | <5 |  | <20 |
| Average Age | 58 | 90 | 56 | 48 |  |  | 62 |  | 61 |
| Average Weight | 62 | 68 | 72 | 44 |  |  | 105 |  | 69 |
| Grams | 1,240 | 135 | 880 | 450 |  |  | 168 |  | 2,873 |
| Grams/Episode | 40 | 135 | 31 | 45 |  |  | 56 |  | 39 |
| Grams per 1,000 Population | 0 | 0 | 0 | 0 |  |  | 1 |  | 0 |
| Pemphigus vulgaris | Patients | 14 | 7 | 8 | <5 | <5 |  |  | <5 | <43 |
| Average Age | 57 | 53 | 59 | 60 | 68 |  |  | 92 | 58 |
| Average Weight | 82 | 72 | 85 | 100 | 104 |  |  | 60 | 82 |
| Grams | 12,898 | 3,060 | 6,838 | 600 | 1,358 |  |  | 120 | 24,873 |
| Grams/Episode | 72 | 45 | 39 | 67 | 36 |  |  | 60 | 53 |
| Grams per 1,000 Population | 2 | 0 | 1 | 0 | 1 |  |  | 0 | 1 |
| Post-transfusion purpura (PTP) | Patients | <5 | <5 |  |  |  |  |  |  | <8 |
| Average Age | 65 | 81 |  |  |  |  |  |  | 69 |
| Average Weight | 70 | 98 |  |  |  |  |  |  | 77 |
| Grams | 420 | 100 |  |  |  |  |  |  | 520 |
| Grams/Episode | 47 | 100 |  |  |  |  |  |  | 52 |
| Grams per 1,000 Population | 0 | 0 |  |  |  |  |  |  | 0 |
| PR3 or MPO ANCA-positive idiopathic rapidly progressive glomerulonephritis | Patients | <5 | <5 | 5 |  |  |  |  |  | <13 |
| Average Age | 74 | 49 | 77 |  |  |  |  |  | 73 |
| Average Weight | 119 | 192 | 77 |  |  |  |  |  | 102 |
| Grams | 785 | 640 | 1,625 |  |  |  |  |  | 3,050 |
| Grams/Episode | 49 | 58 | 36 |  |  |  |  |  | 42 |
| Grams per 1,000 Population | 0 | 0 | 0 |  |  |  |  |  | 0 |
| Relapsing remitting multiple sclerosis | Patients | 7 | <5 | <5 | <5 |  |  |  |  | <25 |
| Average Age | 43 | 40 | 54 | 57 |  |  |  |  | 45 |
| Average Weight | 74 | 78 | 77 | 103 |  |  |  |  | 76 |
| Grams | 2,566 | 278 | 490 | 120 |  |  |  |  | 3,453 |
| Grams/Episode | 28 | 35 | 16 | 40 |  |  |  |  | 26 |
| Grams per 1,000 Population | 0 | 0 | 0 | 0 |  |  |  |  | 0 |
| Secondary hypogammaglobulinaemia (excluding haematological malignancies) | Patients | 426 | 222 | 295 | 20 | 50 | 32 | <5 | 16 | 1,045 |
| Average Age | 57 | 55 | 60 | 49 | 49 | 55 | 66 | 59 | 57 |
| Average Weight | 72 | 69 | 74 | 58 | 69 | 71 | 66 | 75 | 71 |
| Grams | 101,188 | 48,082 | 78,655 | 3,747 | 10,328 | 7,660 | 165 | 3,058 | 252,882 |
| Grams/Episode | 25 | 22 | 22 | 21 | 20 | 28 | 28 | 25 | 23 |
| Grams per 1,000 Population | 13 | 7 | 16 | 2 | 4 | 14 | 1 | 7 | 10 |
| Sero-negative autoimmune encephalitis | Patients | 14 | 7 | 9 |  |  | <5 |  |  | 31 |
| Average Age | 45 | 58 | 41 |  |  | 51 |  |  | 47 |
| Average Weight | 75 | 76 | 85 |  |  | 77 |  |  | 78 |
| Grams | 3,620 | 1,510 | 2,239 |  |  | 330 |  |  | 7,699 |
| Grams/Episode | 28 | 44 | 19 |  |  | 37 |  |  | 27 |
| Grams per 1,000 Population | 0 | 0 | 0 |  |  | 1 |  |  | 0 |
| Sero-negative limbic encephalitis | Patients | 6 | <5 | 10 |  |  |  |  |  | <24 |
| Average Age | 43 | 65 | 37 |  |  |  |  |  | 44 |
| Average Weight | 69 | 77 | 67 |  |  |  |  |  | 69 |
| Grams | 1,245 | 355 | 2,035 |  |  |  |  |  | 3,635 |
| Grams/Episode | 31 | 32 | 21 |  |  |  |  |  | 24 |
| Grams per 1,000 Population | 0 | 0 | 0 |  |  |  |  |  | 0 |
| Solid organ - heart | Patients | 10 | <5 | <5 |  | <5 |  |  |  | <29 |
| Average Age | 48 | 60 | 54 |  | 48 |  |  |  | 51 |
| Average Weight | 83 | 66 | 79 |  | 69 |  |  |  | 78 |
| Grams | 1,215 | 703 | 1,845 |  | 140 |  |  |  | 3,903 |
| Grams/Episode | 23 | 31 | 36 |  | 70 |  |  |  | 30 |
| Grams per 1,000 Population | 0 | 0 | 0 |  | 0 |  |  |  | 0 |
| Solid organ - heart/lung | Patients | <5 |  |  |  |  |  |  |  | <5 |
| Average Age | 36 |  |  |  |  |  |  |  | 36 |
| Average Weight | 44 |  |  |  |  |  |  |  | 44 |
| Grams | 460 |  |  |  |  |  |  |  | 460 |
| Grams/Episode | 20 |  |  |  |  |  |  |  | 20 |
| Grams per 1,000 Population | 0 |  |  |  |  |  |  |  | 0 |
| Solid organ - liver | Patients | <5 | <5 | <5 |  |  |  |  |  | <12 |
| Average Age | 21 | 72 | 32 |  |  |  |  |  | 30 |
| Average Weight | 59 | 79 | 68 |  |  |  |  |  | 64 |
| Grams | 495 | 130 | 192 |  |  |  |  |  | 817 |
| Grams/Episode | 29 | 19 | 6 |  |  |  |  |  | 15 |
| Grams per 1,000 Population | 0 | 0 | 0 |  |  |  |  |  | 0 |
| Solid organ - lung | Patients | 28 | 78 | 5 | 6 | <5 | 5 | <5 |  | <128 |
| Average Age | 39 | 52 | 35 | 55 | 56 | 65 | 58 |  | 48 |
| Average Weight | 61 | 72 | 55 | 77 | 52 | 75 | 72 |  | 69 |
| Grams | 3,760 | 16,883 | 395 | 625 | 70 | 835 | 35 |  | 22,603 |
| Grams/Episode | 26 | 25 | 12 | 39 | 35 | 26 | 35 |  | 25 |
| Grams per 1,000 Population | 0 | 3 | 0 | 0 | 0 | 2 | 0 |  | 1 |
| Solid organ - other | Patients |  | <5 |  | <5 |  |  |  |  | <8 |
| Average Age |  | 61 |  | 61 |  |  |  |  | 61 |
| Average Weight |  | 80 |  | 75 |  |  |  |  | 78 |
| Grams |  | 80 |  | 80 |  |  |  |  | 160 |
| Grams/Episode |  | 80 |  | 40 |  |  |  |  | 53 |
| Grams per 1,000 Population |  | 0 |  | 0 |  |  |  |  | 0 |
| Specific antibody deficiency | Patients | 144 | 56 | 54 | 25 | 68 | <5 |  | 7 | 354 |
| Average Age | 52 | 58 | 52 | 50 | 46 | 31 |  | 36 | 51 |
| Average Weight | 69 | 73 | 75 | 64 | 68 | 71 |  | 75 | 70 |
| Grams | 37,690 | 14,194 | 15,402 | 6,714 | 18,263 | 571 |  | 2,662 | 95,495 |
| Grams/Episode | 20 | 24 | 21 | 21 | 21 | 34 |  | 18 | 21 |
| Grams per 1,000 Population | 5 | 2 | 3 | 4 | 7 | 1 |  | 6 | 4 |
| Staphylococcal TSS | Patients | 8 | 17 | 8 |  | 5 |  |  | <5 | <45 |
| Average Age | 29 | 38 | 34 |  | 49 |  |  | 37 | 36 |
| Average Weight | 44 | 71 | 81 |  | 84 |  |  | 90 | 70 |
| Grams | 655 | 2,123 | 975 |  | 675 |  |  | 280 | 4,708 |
| Grams/Episode | 41 | 79 | 44 |  | 96 |  |  | 70 | 62 |
| Grams per 1,000 Population | 0 | 0 | 0 |  | 0 |  |  | 1 | 0 |
| Streptococcal TSS | Patients | 38 | 46 | 16 | 7 | 19 | 8 | <5 | 5 | <145 |
| Average Age | 46 | 46 | 36 | 44 | 48 | 37 | 7 | 42 | 44 |
| Average Weight | 73 | 76 | 64 | 70 | 76 | 71 | 26 | 95 | 73 |
| Grams | 5,013 | 5,178 | 1,358 | 890 | 2,590 | 1,100 | 105 | 800 | 17,033 |
| Grams/Episode | 96 | 81 | 39 | 81 | 100 | 100 | 18 | 114 | 80 |
| Grams per 1,000 Population | 1 | 1 | 0 | 1 | 1 | 2 | 0 | 2 | 1 |
| Suspected autoimmune encephalitis | Patients | 42 | 36 | 27 | 6 | 6 | <5 | <5 | 5 | <129 |
| Average Age | 44 | 55 | 49 | 45 | 49 | 2 | 56 | 59 | 49 |
| Average Weight | 60 | 75 | 68 | 48 | 71 | 13 | 61 | 59 | 65 |
| Grams | 5,510 | 5,420 | 4,836 | 550 | 670 | 50 | 245 | 890 | 18,171 |
| Grams/Episode | 27 | 43 | 21 | 21 | 22 | 13 | 35 | 39 | 28 |
| Grams per 1,000 Population | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 2 | 1 |
| Suspected autoimmune limbic encephalitis | Patients | 10 | 6 | 13 | <5 | <5 | <5 | <5 |  | <45 |
| Average Age | 63 | 53 | 46 | 78 | 80 | 83 | 76 |  | 58 |
| Average Weight | 67 | 86 | 73 | 80 | 75 | 60 | 71 |  | 73 |
| Grams | 1,600 | 1,033 | 2,360 | 95 | 805 | 120 | 210 |  | 6,222 |
| Grams/Episode | 24 | 52 | 24 | 32 | 50 | 120 | 23 |  | 29 |
| Grams per 1,000 Population | 0 | 0 | 0 | 0 | 0 | 0 | 1 |  | 0 |
| Toxic epidermal necrolysis/Stevens–Johnson syndrome | Patients | 20 | 21 | <5 | <5 |  | <5 | <5 | <5 | <58 |
| Average Age | 45 | 47 | 31 | 65 |  | 78 | 69 | 28 | 47 |
| Average Weight | 84 | 73 | 45 | 56 |  | 85 | 63 | 69 | 76 |
| Grams | 3,405 | 3,695 | 250 | 110 |  | 170 | 128 | 595 | 8,353 |
| Grams/Episode | 58 | 56 | 125 | 55 |  | 57 | 64 | 99 | 60 |
| Grams per 1,000 Population | 0 | 1 | 0 | 0 |  | 0 | 1 | 1 | 0 |
| Wegener granulomatosis | Patients |  | <5 | <5 |  |  |  |  |  | <8 |
| Average Age |  | 61 | 55 |  |  |  |  |  | 58 |
| Average Weight |  | 45 | 60 |  |  |  |  |  | 53 |
| Grams |  | 45 | 95 |  |  |  |  |  | 140 |
| Grams/Episode |  | 11 | 24 |  |  |  |  |  | 18 |
| Grams per 1,000 Population |  | 0 | 0 |  |  |  |  |  | 0 |
| **Chapter 6 Total** | **Patients** | **1,138** | **935** | **678** | **125** | **235** | **94** | **22** | **55** | **3,248** |
| **Average Age** | **52** | **49** | **52** | **48** | **47** | **48** | **46** | **48** | **51** |
| **Average Weight** | **70** | **69** | **71** | **64** | **69** | **70** | **62** | **74** | **70** |
| **Grams** | **263,778** | **217,673** | **186,085** | **26,946** | **55,226** | **27,157** | **2,768** | **13,189** | **792,821** |
| **Grams/Episode** | **27** | **29** | **24** | **28** | **27** | **39** | **25** | **33** | **27** |
| **Grams per 1,000 Population** | **33** | **33** | **37** | **15** | **21** | **51** | **11** | **31** | **31** |
| **Chapter 7 - has application in exceptional circumstances only** | | | | | | | | | | |
| Acute leukaemia in children | Patients |  |  | <5 |  | <5 |  |  |  | <8 |
| Average Age |  |  | 3 |  | 1 |  |  |  | 2 |
| Average Weight |  |  | 13 |  | 7 |  |  |  | 10 |
| Grams |  |  | 15 |  | 20 |  |  |  | 35 |
| Grams/Episode |  |  | 5 |  | 3 |  |  |  | 3 |
| Grams per 1,000 Population |  |  | 0 |  | 0 |  |  |  | 0 |
| Autoimmune neutropenia | Patients | 5 | <5 | <5 | <5 | <5 |  |  | <5 | <20 |
| Average Age | 38 | 60 | 72 | 60 | 24 |  |  | 48 | 50 |
| Average Weight | 57 | 100 | 68 | 75 | 78 |  |  | 66 | 70 |
| Grams | 785 | 400 | 450 | 175 | 30 |  |  | 130 | 1,970 |
| Grams/Episode | 49 | 67 | 38 | 25 | 30 |  |  | 22 | 41 |
| Grams per 1,000 Population | 0 | 0 | 0 | 0 | 0 |  |  | 0 | 0 |
| Autoimmune retinopathy | Patients |  | <5 |  |  |  |  |  |  | <5 |
| Average Age |  | 38 |  |  |  |  |  |  | 38 |
| Average Weight |  | 110 |  |  |  |  |  |  | 110 |
| Grams |  | 200 |  |  |  |  |  |  | 200 |
| Grams/Episode |  | 40 |  |  |  |  |  |  | 40 |
| Grams per 1,000 Population |  | 0 |  |  |  |  |  |  | 0 |
| Autoimmune uveitis | Patients |  | <5 |  |  |  |  |  |  | <5 |
| Average Age |  | 55 |  |  |  |  |  |  | 55 |
| Average Weight |  | 82 |  |  |  |  |  |  | 82 |
| Grams |  | 1,700 |  |  |  |  |  |  | 1,700 |
| Grams/Episode |  | 71 |  |  |  |  |  |  | 71 |
| Grams per 1,000 Population |  | 0 |  |  |  |  |  |  | 0 |
| Catastrophic antiphospholipid syndrome | Patients | 5 | <5 | 7 |  | <5 | <5 | <5 |  | <27 |
| Average Age | 56 | 66 | 50 |  | 65 | 59 | 18 |  | 53 |
| Average Weight | 88 | 75 | 75 |  | 66 | 70 | 70 |  | 78 |
| Grams | 910 | 220 | 1,253 |  | 60 | 140 | 140 |  | 2,723 |
| Grams/Episode | 38 | 110 | 30 |  | 60 | 28 | 28 |  | 34 |
| Grams per 1,000 Population | 0 | 0 | 0 |  | 0 | 0 | 1 |  | 0 |
| Cerebellar degeneration | Patients | <5 | 5 | <5 | <5 | <5 | <5 |  | <5 | <28 |
| Average Age | 55 | 59 | 74 | 63 | 69 | 66 |  | 74 | 66 |
| Average Weight | 117 | 78 | 70 | 69 | 73 | 98 |  | 82 | 79 |
| Grams | 225 | 1,775 | 543 | 540 | 180 | 210 |  | 373 | 3,845 |
| Grams/Episode | 45 | 40 | 22 | 30 | 60 | 19 |  | 37 | 33 |
| Grams per 1,000 Population | 0 | 0 | 0 | 0 | 0 | 0 |  | 1 | 0 |
| Coagulation factor inhibitors | Patients | 5 | <5 | <5 | 10 |  |  |  |  | <23 |
| Average Age | 73 | 71 | 55 | 63 |  |  |  |  | 66 |
| Average Weight | 59 | 82 | 102 | 71 |  |  |  |  | 74 |
| Grams | 1,620 | 810 | 1,820 | 2,585 |  |  |  |  | 6,835 |
| Grams/Episode | 49 | 54 | 55 | 44 |  |  |  |  | 49 |
| Grams per 1,000 Population | 0 | 0 | 0 | 1 |  |  |  |  | 0 |
| Devic disease (neuromyelitis optica) | Patients | 28 | <5 | 7 | <5 | <5 |  |  |  | <50 |
| Average Age | 51 | 24 | 50 | 23 | 58 |  |  |  | 49 |
| Average Weight | 70 | 54 | 82 | 60 | 69 |  |  |  | 71 |
| Grams | 9,619 | 1,270 | 1,755 | 120 | 1,505 |  |  |  | 14,269 |
| Grams/Episode | 32 | 49 | 18 | 40 | 50 |  |  |  | 31 |
| Grams per 1,000 Population | 1 | 0 | 0 | 0 | 1 |  |  |  | 1 |
| Diabetic amyotrophy | Patients | <5 | 9 | 5 | <5 |  |  |  |  | <23 |
| Average Age | 62 | 67 | 55 | 47 |  |  |  |  | 62 |
| Average Weight | 70 | 89 | 71 | 122 |  |  |  |  | 83 |
| Grams | 625 | 2,430 | 980 | 200 |  |  |  |  | 4,235 |
| Grams/Episode | 16 | 43 | 31 | 40 |  |  |  |  | 32 |
| Grams per 1,000 Population | 0 | 0 | 0 | 0 |  |  |  |  | 0 |
| Epidermolysis bullosa acquisita | Patients |  | <5 |  | <5 | <5 |  |  | <5 | <16 |
| Average Age |  | 59 |  | 49 | 72 |  |  | 49 | 58 |
| Average Weight |  | 100 |  | 92 | 116 |  |  | 73 | 95 |
| Grams |  | 150 |  | 740 | 1,955 |  |  | 850 | 3,695 |
| Grams/Episode |  | 150 |  | 39 | 63 |  |  | 45 | 53 |
| Grams per 1,000 Population |  | 0 |  | 0 | 1 |  |  | 2 | 0 |
| Epilepsy (rare childhood cases) | Patients | 8 | 5 | 16 |  |  |  |  |  | 28 |
| Average Age | 12 | 10 | 13 |  |  |  |  |  | 12 |
| Average Weight | 38 | 29 | 34 |  |  |  |  |  | 34 |
| Grams | 1,838 | 1,280 | 3,425 |  |  |  |  |  | 6,543 |
| Grams/Episode | 26 | 20 | 13 |  |  |  |  |  | 16 |
| Grams per 1,000 Population | 0 | 0 | 1 |  |  |  |  |  | 0 |
| Graves ophthalmopathy | Patients |  |  | <5 |  | <5 |  |  |  | <8 |
| Average Age |  |  | 55 |  | 58 |  |  |  | 56 |
| Average Weight |  |  | 75 |  | 59 |  |  |  | 70 |
| Grams |  |  | 880 |  | 648 |  |  |  | 1,528 |
| Grams/Episode |  |  | 31 |  | 25 |  |  |  | 28 |
| Grams per 1,000 Population |  |  | 0 |  | 0 |  |  |  | 0 |
| Haemolytic disease of the newborn | Patients | 16 | <5 | 6 |  | <5 |  | <5 | <5 | <43 |
| Average Age | 6 | 8 | 33 |  | 0 |  | 0 | 28 | 14 |
| Average Weight | 14 | 23 | 84 |  | 3 |  | 3 | 54 | 33 |
| Grams | 943 | 738 | 4,930 |  | 5 |  | 3 | 2,633 | 9,250 |
| Grams/Episode | 27 | 49 | 62 |  | 3 |  | 3 | 54 | 51 |
| Grams per 1,000 Population | 0 | 0 | 1 |  | 0 |  | 0 | 6 | 0 |
| Hashimoto encephalopathy | Patients | 10 | <5 | <5 |  | <5 |  |  |  | <27 |
| Average Age | 41 | 35 | 74 |  | 47 |  |  |  | 42 |
| Average Weight | 78 | 70 | 78 |  | 58 |  |  |  | 75 |
| Grams | 3,825 | 920 | 570 |  | 690 |  |  |  | 6,005 |
| Grams/Episode | 37 | 46 | 16 |  | 38 |  |  |  | 34 |
| Grams per 1,000 Population | 0 | 0 | 0 |  | 0 |  |  |  | 0 |
| LETMs | Patients | <5 |  |  |  |  |  |  |  | <5 |
| Average Age | 9 |  |  |  |  |  |  |  | 9 |
| Average Weight | 60 |  |  |  |  |  |  |  | 60 |
| Grams | 135 |  |  |  |  |  |  |  | 135 |
| Grams/Episode | 45 |  |  |  |  |  |  |  | 45 |
| Grams per 1,000 Population | 0 |  |  |  |  |  |  |  | 0 |
| Limbic encephalitis | Patients | 11 | <5 | 9 |  | <5 |  |  |  | <28 |
| Average Age | 60 | 69 | 52 |  | 17 |  |  |  | 56 |
| Average Weight | 78 | 72 | 70 |  | 49 |  |  |  | 74 |
| Grams | 2,683 | 235 | 2,698 |  | 220 |  |  |  | 5,835 |
| Grams/Episode | 30 | 26 | 19 |  | 55 |  |  |  | 24 |
| Grams per 1,000 Population | 0 | 0 | 1 |  | 0 |  |  |  | 0 |
| Limbic encephalitis, nonparaneoplastic | Patients | 76 | 45 | 92 | <5 | 7 | <5 | <5 | <5 | <236 |
| Average Age | 47 | 48 | 45 | 62 | 46 | 62 | 52 | 66 | 47 |
| Average Weight | 73 | 67 | 80 | 60 | 88 | 82 | 78 | 61 | 75 |
| Grams | 17,982 | 10,268 | 35,415 | 70 | 2,285 | 345 | 155 | 270 | 66,789 |
| Grams/Episode | 35 | 32 | 25 | 18 | 42 | 35 | 31 | 21 | 28 |
| Grams per 1,000 Population | 2 | 2 | 7 | 0 | 1 | 1 | 1 | 1 | 3 |
| Myocarditis in children | Patients |  | 5 |  | <5 | <5 |  | <5 |  | <19 |
| Average Age |  | 3 |  | 0 | 1 |  | 0 |  | 2 |
| Average Weight |  | 21 |  | 4 | 8 |  | 6 |  | 14 |
| Grams |  | 405 |  | 10 | 3 |  | 10 |  | 428 |
| Grams/Episode |  | 45 |  | 5 | 1 |  | 10 |  | 29 |
| Grams per 1,000 Population |  | 0 |  | 0 | 0 |  | 0 |  | 0 |
| NMOSD–AQP4 ab positive | Patients | <5 | <5 | <5 |  |  |  |  |  | <12 |
| Average Age | 76 | 43 | 58 |  |  |  |  |  | 59 |
| Average Weight | 79 | 70 | 94 |  |  |  |  |  | 81 |
| Grams | 210 | 140 | 188 |  |  |  |  |  | 538 |
| Grams/Episode | 26 | 35 | 13 |  |  |  |  |  | 20 |
| Grams per 1,000 Population | 0 | 0 | 0 |  |  |  |  |  | 0 |
| NMOSD–MOG ab positive | Patients | <5 | <5 |  |  |  |  |  |  | <8 |
| Average Age | 3 | 20 |  |  |  |  |  |  | 14 |
| Average Weight | 18 | 38 |  |  |  |  |  |  | 31 |
| Grams | 53 | 300 |  |  |  |  |  |  | 353 |
| Grams/Episode | 18 | 25 |  |  |  |  |  |  | 24 |
| Grams per 1,000 Population | 0 | 0 |  |  |  |  |  |  | 0 |
| NMOSD–seronegative | Patients | 9 | <5 | <5 | <5 |  |  |  | <5 | <24 |
| Average Age | 45 | 9 | 36 | 67 |  |  |  | 23 | 41 |
| Average Weight | 76 | 48 | 83 | 55 |  |  |  | 78 | 74 |
| Grams | 1,780 | 465 | 320 | 110 |  |  |  | 155 | 2,830 |
| Grams/Episode | 46 | 47 | 107 | 55 |  |  |  | 155 | 51 |
| Grams per 1,000 Population | 0 | 0 | 0 | 0 |  |  |  | 0 | 0 |
| PANDAS/tic disorders | Patients | 8 | <5 | 12 |  | <5 |  |  |  | <30 |
| Average Age | 10 | 14 | 11 |  | 12 |  |  |  | 11 |
| Average Weight | 38 | 46 | 59 |  | 49 |  |  |  | 48 |
| Grams | 4,668 | 370 | 6,338 |  | 1,088 |  |  |  | 12,463 |
| Grams/Episode | 63 | 31 | 27 |  | 39 |  |  |  | 36 |
| Grams per 1,000 Population | 1 | 0 | 1 |  | 0 |  |  |  | 0 |
| Potassium channel antibody-associated encephalopathy | Patients | 11 | <5 | <5 | <5 | <5 | <5 |  |  | <32 |
| Average Age | 56 | 59 | 59 | 67 | 67 | 58 |  |  | 58 |
| Average Weight | 72 | 80 | 74 | 80 | 65 | 87 |  |  | 74 |
| Grams | 3,598 | 1,418 | 1,735 | 620 | 588 | 1,363 |  |  | 9,320 |
| Grams/Episode | 27 | 39 | 53 | 31 | 35 | 33 |  |  | 33 |
| Grams per 1,000 Population | 0 | 0 | 0 | 0 | 0 | 3 |  |  | 0 |
| Pure red cell aplasia | Patients | 14 | 11 | 7 | <5 | <5 | <5 |  | <5 | <51 |
| Average Age | 52 | 38 | 52 | 60 | 55 | 64 |  | 56 | 50 |
| Average Weight | 65 | 54 | 81 | 80 | 78 | 92 |  | 57 | 69 |
| Grams | 3,321 | 1,165 | 2,305 | 605 | 310 | 1,068 |  | 93 | 8,866 |
| Grams/Episode | 41 | 51 | 32 | 43 | 78 | 43 |  | 46 | 40 |
| Grams per 1,000 Population | 0 | 0 | 0 | 0 | 0 | 2 |  | 0 | 0 |
| Pure white cell aplasia | Patients |  |  |  |  | <5 |  |  |  | <5 |
| Average Age |  |  |  |  | 13 |  |  |  | 13 |
| Average Weight |  |  |  |  | 34 |  |  |  | 34 |
| Grams |  |  |  |  | 33 |  |  |  | 33 |
| Grams/Episode |  |  |  |  | 33 |  |  |  | 33 |
| Grams per 1,000 Population |  |  |  |  | 0 |  |  |  | 0 |
| Pyoderma gangrenosum | Patients | 5 | 22 | 5 | <5 | <5 |  |  | <5 | <45 |
| Average Age | 74 | 62 | 70 | 40 | 39 |  |  | 18 | 63 |
| Average Weight | 82 | 87 | 88 | 125 | 63 |  |  | 70 | 87 |
| Grams | 1,365 | 13,545 | 1,957 | 400 | 1,090 |  |  | 130 | 18,487 |
| Grams/Episode | 49 | 54 | 19 | 57 | 39 |  |  | 26 | 44 |
| Grams per 1,000 Population | 0 | 2 | 0 | 0 | 0 |  |  | 0 | 1 |
| Rasmussen Syndrome | Patients | 13 | 6 | <5 | <5 | <5 |  |  | <5 | <35 |
| Average Age | 34 | 19 | 40 | 36 | 11 |  |  | 61 | 32 |
| Average Weight | 65 | 47 | 70 | 118 | 55 |  |  | 62 | 63 |
| Grams | 7,461 | 1,615 | 1,205 | 660 | 385 |  |  | 325 | 11,651 |
| Grams/Episode | 35 | 27 | 20 | 51 | 48 |  |  | 25 | 32 |
| Grams per 1,000 Population | 1 | 0 | 0 | 0 | 0 |  |  | 1 | 0 |
| Scleromyxedema | Patients | 5 | 5 | <5 | <5 | <5 |  |  |  | <25 |
| Average Age | 61 | 64 | 70 | 74 | 52 |  |  |  | 63 |
| Average Weight | 75 | 68 | 80 | 57 | 78 |  |  |  | 72 |
| Grams | 3,370 | 1,398 | 155 | 1,675 | 2,505 |  |  |  | 9,103 |
| Grams/Episode | 47 | 23 | 13 | 37 | 49 |  |  |  | 38 |
| Grams per 1,000 Population | 0 | 0 | 0 | 1 | 1 |  |  |  | 0 |
| Sjögren’s syndrome | Patients | 9 | <5 | <5 | <5 |  |  |  | <5 | <29 |
| Average Age | 61 | 75 | 56 | 64 |  |  |  | 67 | 62 |
| Average Weight | 74 | 80 | 79 | 70 |  |  |  | 75 | 74 |
| Grams | 3,695 | 160 | 310 | 1,155 |  |  |  | 2,553 | 7,873 |
| Grams/Episode | 31 | 53 | 24 | 36 |  |  |  | 57 | 37 |
| Grams per 1,000 Population | 0 | 0 | 0 | 1 |  |  |  | 6 | 0 |
| Subacute sensory neuropathy | Patients | 5 | <5 | 7 | <5 | <5 |  | <5 |  | <28 |
| Average Age | 59 | 70 | 61 | 66 | 51 |  | 62 |  | 62 |
| Average Weight | 67 | 76 | 79 | 72 | 66 |  | 103 |  | 75 |
| Grams | 1,575 | 475 | 1,575 | 300 | 165 |  | 668 |  | 4,758 |
| Grams/Episode | 32 | 26 | 31 | 30 | 55 |  | 67 |  | 34 |
| Grams per 1,000 Population | 0 | 0 | 0 | 0 | 0 |  | 3 |  | 0 |
| Susac syndrome | Patients | 11 | <5 | 6 |  |  |  |  |  | 21 |
| Average Age | 42 | 30 | 49 |  |  |  |  |  | 42 |
| Average Weight | 91 | 68 | 91 |  |  |  |  |  | 87 |
| Grams | 9,035 | 1,380 | 3,360 |  |  |  |  |  | 13,775 |
| Grams/Episode | 43 | 25 | 46 |  |  |  |  |  | 41 |
| Grams per 1,000 Population | 1 | 0 | 1 |  |  |  |  |  | 1 |
| Systemic capillary leak syndrome | Patients | 7 | <5 | <5 |  | <5 |  |  | <5 | <26 |
| Average Age | 34 | 56 | 11 |  | 34 |  |  | 68 | 37 |
| Average Weight | 61 | 69 | 43 |  | 93 |  |  | 70 | 67 |
| Grams | 3,250 | 3,333 | 405 |  | 1,455 |  |  | 1,680 | 10,123 |
| Grams/Episode | 32 | 57 | 37 |  | 77 |  |  | 84 | 48 |
| Grams per 1,000 Population | 0 | 1 | 0 |  | 1 |  |  | 4 | 0 |
| **Chapter 7 Total** | **Patients** | **264** | **155** | **208** | **34** | **36** | **8** | **5** | **22** | **729** |
| **Average Age** | **45** | **46** | **44** | **58** | **39** | **62** | **26** | **53** | **46** |
| **Average Weight** | **68** | **67** | **75** | **73** | **67** | **87** | **52** | **67** | **70** |
| **Grams** | **84,567** | **48,563** | **74,585** | **9,965** | **15,218** | **3,125** | **975** | **9,190** | **246,231** |
| **Grams/Episode** | **36** | **40** | **26** | **38** | **45** | **34** | **44** | **50** | **33** |
| **Grams per 1,000 Population** | **11** | **7** | **15** | **6** | **6** | **6** | **4** | **22** | **10** |
| **Chapter 8 - use is not supported** | | | | | | | | | | |
| Idiopathic dilated cardiomyopathy | Patients |  |  |  |  |  |  | <5 |  | <5 |
| Average Age |  |  |  |  |  |  | 0 |  | 0 |
| Average Weight |  |  |  |  |  |  | 3 |  | 3 |
| Grams |  |  |  |  |  |  | 3 |  | 3 |
| Grams/Episode |  |  |  |  |  |  | 3 |  | 3 |
| Grams per 1,000 Population |  |  |  |  |  |  | 0 |  | 0 |
| Paraneoplastic Subacute Sensory Neuropathy | Patients |  | <5 |  |  |  |  |  |  | <5 |
| Average Age |  | 72 |  |  |  |  |  |  | 72 |
| Average Weight |  | 47 |  |  |  |  |  |  | 47 |
| Grams |  | 45 |  |  |  |  |  |  | 45 |
| Grams/Episode |  | 15 |  |  |  |  |  |  | 15 |
| Grams per 1,000 Population |  | 0 |  |  |  |  |  |  | 0 |
| Sepsis | Patients | <5 | <5 | <5 |  |  |  |  |  | <12 |
| Average Age | 67 | 48 | 36 |  |  |  |  |  | 54 |
| Average Weight | 79 | 75 | 108 |  |  |  |  |  | 85 |
| Grams | 180 | 150 | 120 |  |  |  |  |  | 450 |
| Grams/Episode | 90 | 150 | 40 |  |  |  |  |  | 75 |
| Grams per 1,000 Population | 0 | 0 | 0 |  |  |  |  |  | 0 |
| **Chapter 8 Total** | **Patients** | **<5** | **<5** | **<5** |  |  |  | **<5** |  | **<17** |
| **Average Age** | **67** | **60** | **36** |  |  |  | **0** |  | **43** |
| **Average Weight** | **90** | **98** | **120** |  |  |  | **3** |  | **69** |
| **Grams** | **180** | **195** | **120** |  |  |  | **3** |  | **453** |
| **Grams/Episode** | **90** | **49** | **40** |  |  |  | **3** |  | **65** |
| **Grams per 1,000 Population** | **0** | **0** | **0** |  |  |  | **0** |  | **0** |
| **Total** | **Patients** | **7,649** | **4,679** | **4,952** | **1,188** | **1,193** | **410** | **115** | **394** | **20,358** |
| **Average Age** | **60** | **56** | **59** | **60** | **53** | **57** | **50** | **55** | **58** |
| **Average Weight** | **75** | **73** | **76** | **75** | **74** | **77** | **69** | **76** | **75** |
| **Grams** | **2,325,032** | **1,420,173** | **1,666,341** | **324,413** | **411,445** | **136,059** | **30,118** | **132,520** | **6,446,102** |
| **Grams/Episode** | **31** | **32** | **25** | **32** | **33** | **35** | **41** | **34** | **30** |
| **Grams per 1,000 Population** | **289** | **218** | **330** | **186** | **158** | **256** | **123** | **313** | **256** |

*Note 1: The national patient count only includes one count for each patient. This may result in the sum of the state and territory totals being greater than the national total.*

*Note 2: To maintain the anonymity of individual patients and health providers, data showing less than five (5) have be suppressed or aggregated if there is a potential to re-identify or exceptions are agreed between national and state/territory data custodians.*

## Appendix E – System Source for Tables and Figures

[Table 1: Go Live Dates for BloodSTAR BloodSTAR](#_Toc107955695)

[Table 2: Grams recorded in the different systems held by the NBA All](#_Toc107955696)

[Table 3: Percentage change in grams issued over time by state and territory IDMS](#_Toc107955697)

[Table 4: Issues of domestic Ig compared with imported Ig IDMS](#_Toc107955698)

[Table 5: Issues of domestic Ig compared with imported Ig and public versus private IDMS](#_Toc107955699)

[Table 6: Patient numbers by state and territory STARS\_BloodSTAR](#_Toc107955700)

[Table 7: Patient numbers and average weight by age range STARS\_BloodSTAR](#_Toc107955701)

[Table 8: Ig grams dispensed by criteria chapter STARS\_BloodSTAR](#_Toc107955702)

[Table 9: Ig grams dispensed by speciality and state and territory for 2018-19 STARS\_BloodSTAR](#_Toc107955703)

[Table 10: Patients dispensed Ig by speciality and state and territory for 2018-19 STARS\_BloodSTAR](#_Toc107955704)

[Table 11: New patients dispensed Ig by speciality and state and territory for 2018-19 STARS\_BloodSTAR](#_Toc107955705)

[Table 12: Grams dispensed by state and territory and medical condition for 2018-19 STARS\_BloodSTAR](#_Toc107955706)

[Table 13: Patients dispensed by SCIg medical conditions and product for 2018-19 STARS\_BloodSTAR](#_Toc107955706)

[Table 14: Grams dispensed by SCIg medical conditions and product for 2018-19 STARS\_BloodSTAR](#_Toc107955707)

[Table 15: Patients dispensed by SCIg medical conditions and state and territory for 2018-19 STARS\_BloodSTAR](#_Toc107955708)

[Table 16: Grams dispensed by SCIg medical conditions and state and territory for 2018-19 STARS\_BloodSTAR](#_Toc107955709)

[Figure 1: Snapshot All](#_Toc107955710)

[Figure 2: Per cennt issued grams by medical condition BloodSTAR](#_Toc107955711)

[Figure 3: Ten-year trend in issues of Ig IDMS](#_Toc107955712)

[Figure 4: Ten-year trends in expenditure on Ig IDMS](#_Toc107955713)

[Figure 5: Ig expenditure as a proportion of the national blood budget IDMS](#_Toc107955714)

[Figure 6: New and Total Patients since 2009-10 STARS\_BloodSTAR](#_Toc107955715)

[Figure 7: Patient age relative to Australian average STARS\_BloodSTAR](#_Toc107955716)

[Figure 8: Grams of Ig dispensed by speciality STARS\_BloodSTAR](#_Toc107955717)

[Figure 9: Grams of Ig dispensed by top 10 medical conditions STARS\_BloodSTAR](#_Toc107955717)

[Figure 10: NHIg grams issued and grams issued per 1,000 population IDMS](#_Toc107955718)

Appendix A: Background [All](#_Toc107955714)

Appendix B: Acronymns and Glossary [All](#_Toc107955715)

Appendix C: Conditions Mapping Table [STARS\_BloodSTAR](#_Toc107955716)

Appendix D: Dataset of Ig Supply by State/Territory 2018-19 [STARS\_BloodSTAR](#_Toc107955717)

1. ABS 3101.59 [↑](#footnote-ref-1)
2. World Health Organization, [Ageing and health (who.int)](https://www.who.int/news-room/fact-sheets/detail/ageing-and-health) [↑](#footnote-ref-2)
3. ABS 4841.0 [↑](#footnote-ref-3)