Immunoglobulin Database

Annual Report 2021/22

January 2023

Compiled by
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1 Database Overview

Mark Foster

National Immunoglobulin Database Data Update

In place of the regular National Immunoglobulin Database Annual Report, we shall be publishing a Data Update Report for 2021/22.

This report provides an analysis of immunoglobulin usage across England & Northern Ireland in line with the datasets provided as per previous Annual Reports.

We anticipate for a full National Immunoglobulin Database Annual Report to be published for the 2022/23 financial year.

The 2022/23 report will include chapters from all stakeholders as well as detailed updates on all policies related to the use of immunoglobulins. Stakeholder contributions to be included in the report are as below.

- Commercial Medicines Unit
- NHSE commissioning update
- Immunoglobulin management plan implementation (IMP)
- Clinical Commissioning Policy (CCP)
- SRIAP Terms of Reference.
- Blood Transfusion Service

Following on from discussion with stakeholders, we're looking into producing data update reports every six months. This will allow for more proactive analysis of trends in immunoglobulin usage. Suggestions or comments on this proposal are welcomed, please contact support@mdsas.com

2 Blood Transfusion Service

Stephen Bailey

Plasma donation in England

The Government directed NHS Blood and Transplant to restart plasma donation in April 2021, after it accepted advice from the MHRA that plasma from UK donors could again be used for immunoglobulin. The Ambition is for plasma collected by NHSBT to provide 20% of England's future supply within the next 2 – 3 years, to help protect patients against international supply pressures. NHSBT is also working with the DHSC and the UK's other blood services on a memorandum of understanding with the UK's other blood services.

NHS Blood and Transplant collects plasma from two sources, dedicated donations (known as Source Plasma) and via recover from whole blood (known as Recovered Plasma).

There are three dedicated plasma donor centres; Twickenham, Reading, and Birmingham. The Twickenham centre has around 1,900 active donors. The Reading centre has around 2,200 active donors. The Birmingham Centre has around 1,700 active donors. These centres are currently collecting around 1,500 litres of plasma a month. During 2022, NHSBT introduced new apheresis donation machines which enable more donations from smaller and slight people, enabling the percentage of female donors to rise from 10% to 30%.

The recovery of plasma from whole blood was introduced gradually in 2022/23. NHSBT is currently collecting just under 8,000 litres of recovered plasma a month.

The collection of recovered plasma is currently meeting almost on target. However there is a need to further grow the plasma donor base for dedicated plasma donation. Around 60% of dedicated plasma donation appointments are currently booked. NHSBT aims to grow the donor base by around 4,000 more active donors. NHSBT has developed a plasma marketing team which is now integrated into the wider effort to recruit and retain donors. Market research has shown public awareness of plasma donation is low, following the long break in plasma donation in the UK. Donations taken in England are being frozen and stored and will start reaching patients once a fractionator is appointed and a full supply chain is in place.

There continues to be growing international recognition of the safety of UK plasma and other blood products, following announcements that the blood services of Australia, the United States of America, Ireland and Israel, are again accepting donations from people who have lived in the UK.

Table 1.1 Immunology - volume of recorded immunoglobulin and patients on Ig therapy 2021/22

Condition	Patients	Grams
Primary immunodeficiencies associated with significant antibody defects	3,639	1,288,611
Secondary antibody deficiencies	2,846	753,948
Specific antibody deficiency	298	101,137
Thymoma with immunodeficiency	45	17,876
HSCT in primary immunodeficiencies	37	5,461
Total	6,865	2,167,032

Table 1.2 Haematology - volume of recorded immunoglobulin and patients on Ig therapy 2021/22

Condition	Patients	Grams
Immune thrombocytopenic purpura (ITP)	1,855	212,092
Autoimmune haemolytic anaemia	193	24,177
Coagulation factor inhibitors (alloantibodies and autoantibodies)	45	16,753
Alloimmune thrombocytopenia	40	14,931
Haemophagocytic syndrome / Haemophagocytic lymphohistiocytosis (HLH)	102	13,374
Post-transfusion hyperhaemolysis	58	7,381
Haemolytic disease of the newborn	167	4,441
Acquired red cell aplasia associated with chronic parvovirus B19 infection	26	3,428
Post -transfusion purpura	5	510
Total	2,491	297,085

Table 1.3 Neurology - volume of recorded immunoglobulin and patients on Ig therapy 2021/22

Condition	Patients	Grams
CIDP	1,554	1,268,447
Multifocal motor neuropathy - (MMN)	637	641,716
Myasthenia gravis	666	189,534
Inflammatory myopathies	390	183,414
Guillain–Barré syndrome and variants	891	131,788
Stiff person syndrome - (SPS) or variant	95	51,542
Autoimmune encephalitides (AIE)	136	34,185
IgM Paraprotein-associated demyelinating neuropathy	23	19,624
Rasmussens Encephalitis	13	7,070
Neuromyotonia (Isaacs syndrome)	9	6,079
Non-MS CNS inflammatory disease	35	5,828
Toxic epidermal necrolysis, Stevens Johnson syndrome	26	3,325
Opsoclonus-myoclonus syndrome	7	2,565
Paraneoplastic neurological syndromes (PNS)	6	1,525
Total	4,488	2,546,642

Table 1.4 Infectious diseases - volume of recorded immunoglobulin and patients on Ig therapy 2021/22

Condition	Patients	Grams
Toxic Shock Syndrome (TSS)	117	12,559
Severe or recurrent Clostridium difficile infection (CDI) colitis	52	1,720
Post-exposure prophylaxis or treatment of viral or pathogenic infection, in line with Public Health England recommendations	13	1,423
Viral pneumonitis post-transplantation	6	680
Tetanus	18	671
Measles	4	259
Varicella zoster	1	20
Hepatitis A	4	4
Total	215	17,336

Table 1.5 'Others' - volume of recorded immunoglobulin and patients on Ig therapy 2021/22

Condition	Patients	Grams
Kawasaki disease	547	25,731
Immunobullous diseases	39	25,412
Transplantation (Solid Organ)	123	16,222
Paediatric inflammatory multisystem syndrome temporally associated to COVID-19 (PIMS-TS)	200	13,861
ANCA-associated systemic vasculitides	31	10,545
Autoimmune uveitis	11	2,608
Allo-immune neonatal haemochromatosis	7	1,520
Catastrophic antiphospolipid syndrome	9	1,520
Gestational allo-immune Liver Disease (GALD)	2	880
Prevention of autoimmune congenital heart block (anti-Ro)	7	448
Total	976	98,745

Table 1.6 Unlisted - volume of recorded immunoglobulin and patients on Ig therapy 2021/22

Condition	Patients	Grams
Other conditions	295	121,484
Total	295	121,484

Figure 1.1 Monthly number of patients on immunogloublin therapy 2021/22

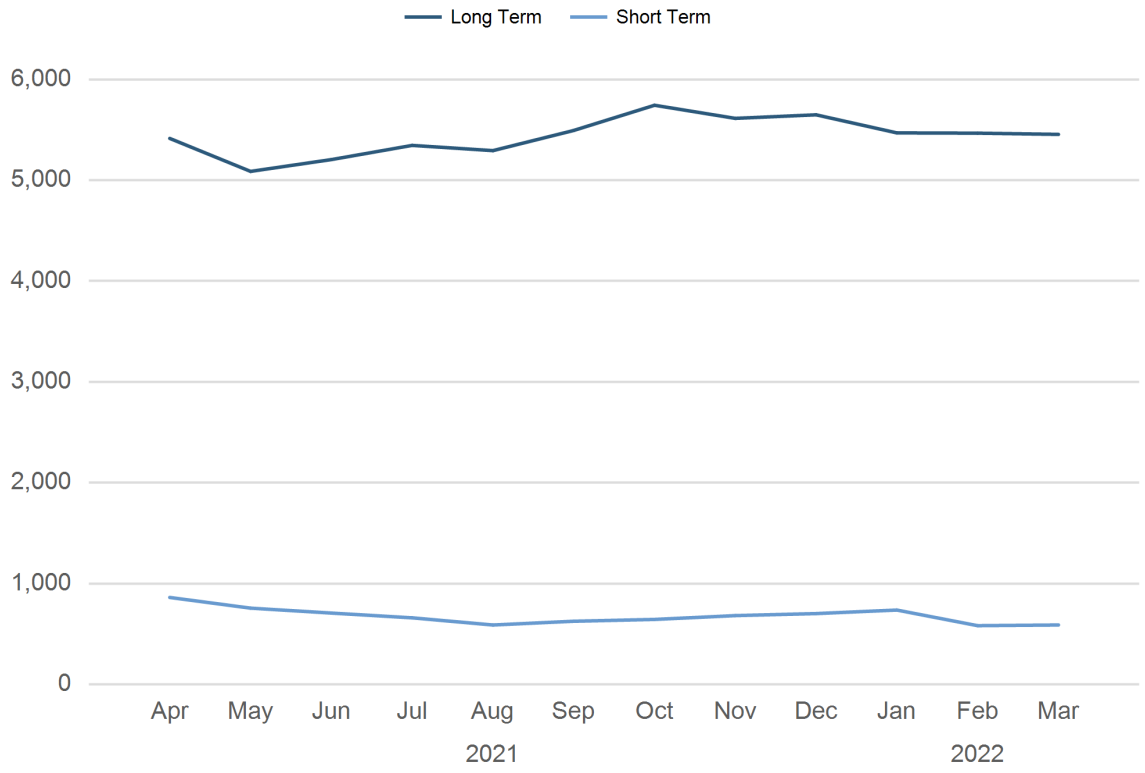

Figure 1.2 Yearly number of patients on immunogloublin therapy 2017/18 - 2021/22

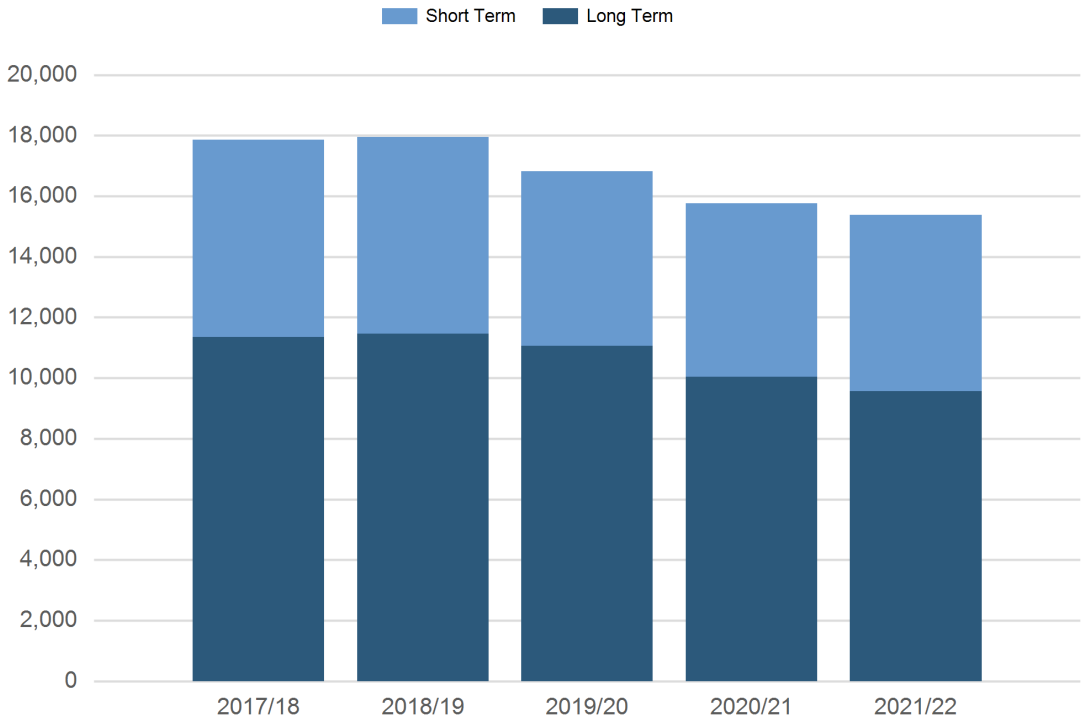

Figure 1.3 Monthly number of patients on immunogloublin therapy by speciality 2021/22

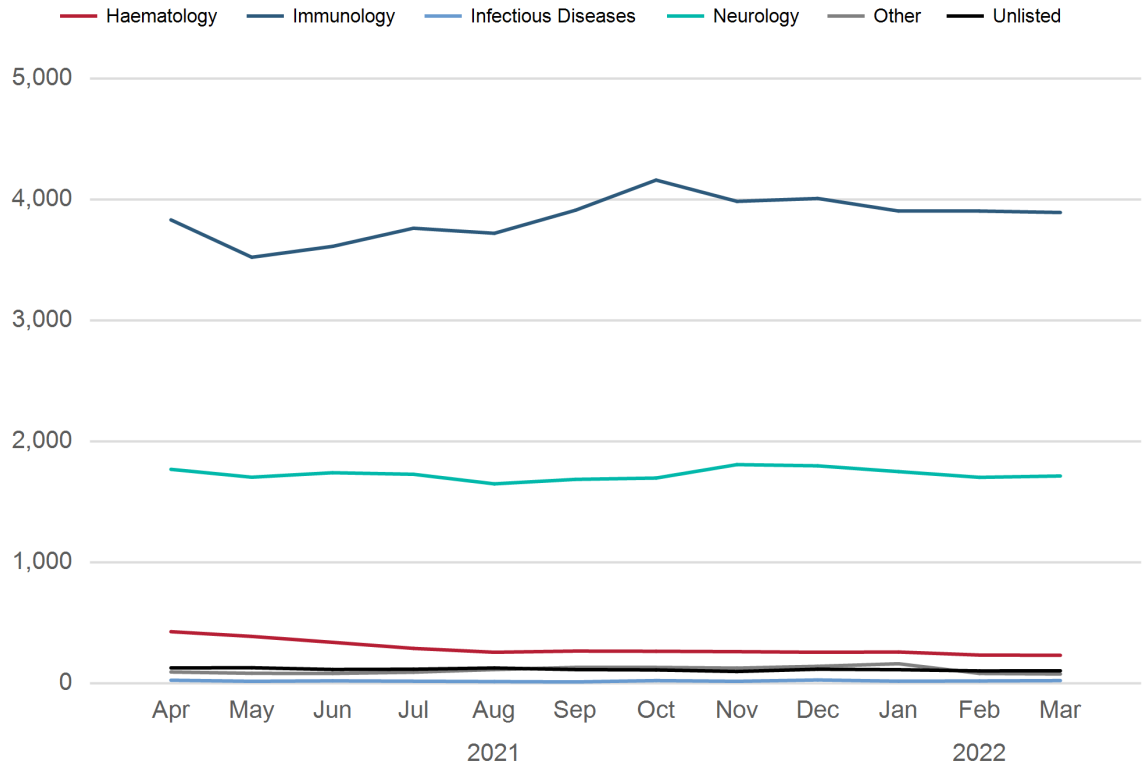

Figure 1.4 Yearly number of patients on immunogloublin therapy by speciality 2017/18 - 2021/22

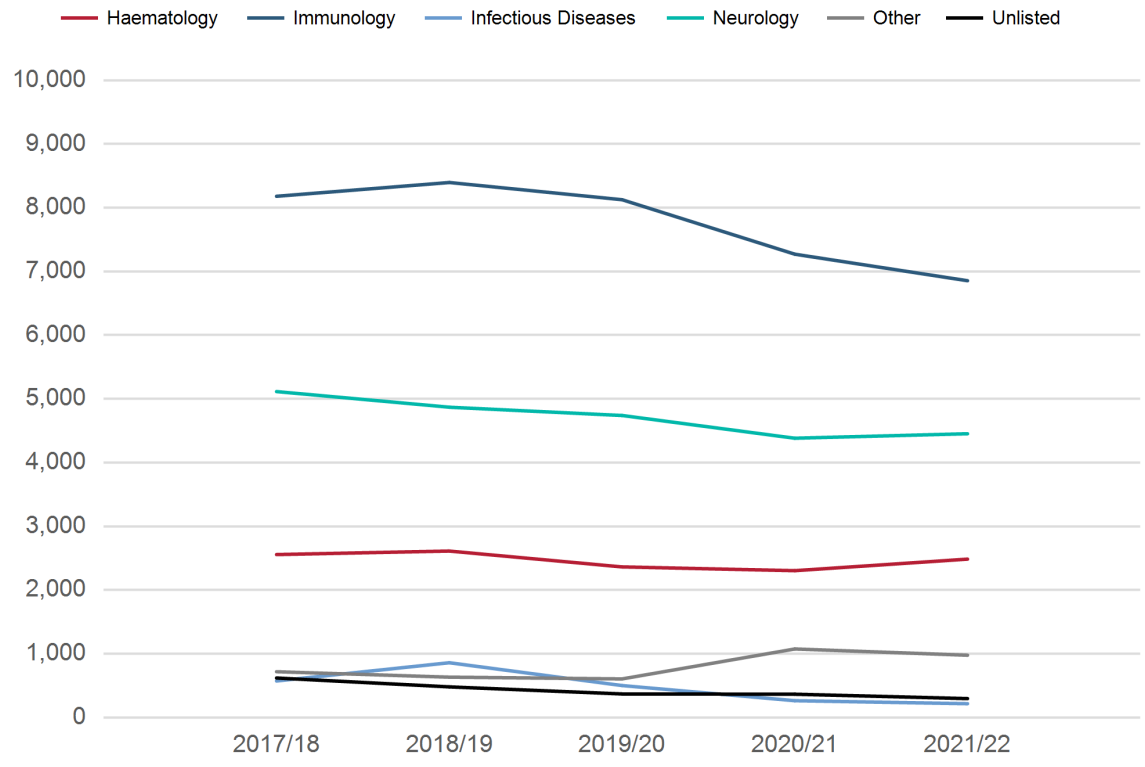

Figure 1.5 Number of patients on immunoglobulin therapy by commissioning region 2021/22

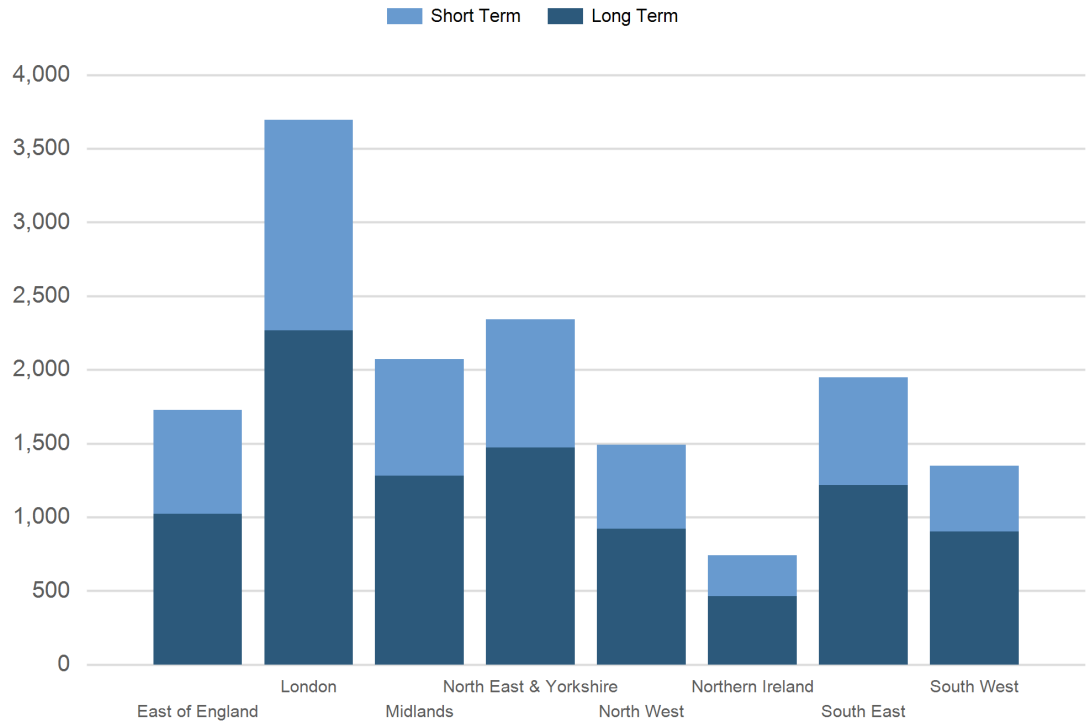

Figure 1.6 Recorded volumes of immunoglobulin by commissioning region 2021/22

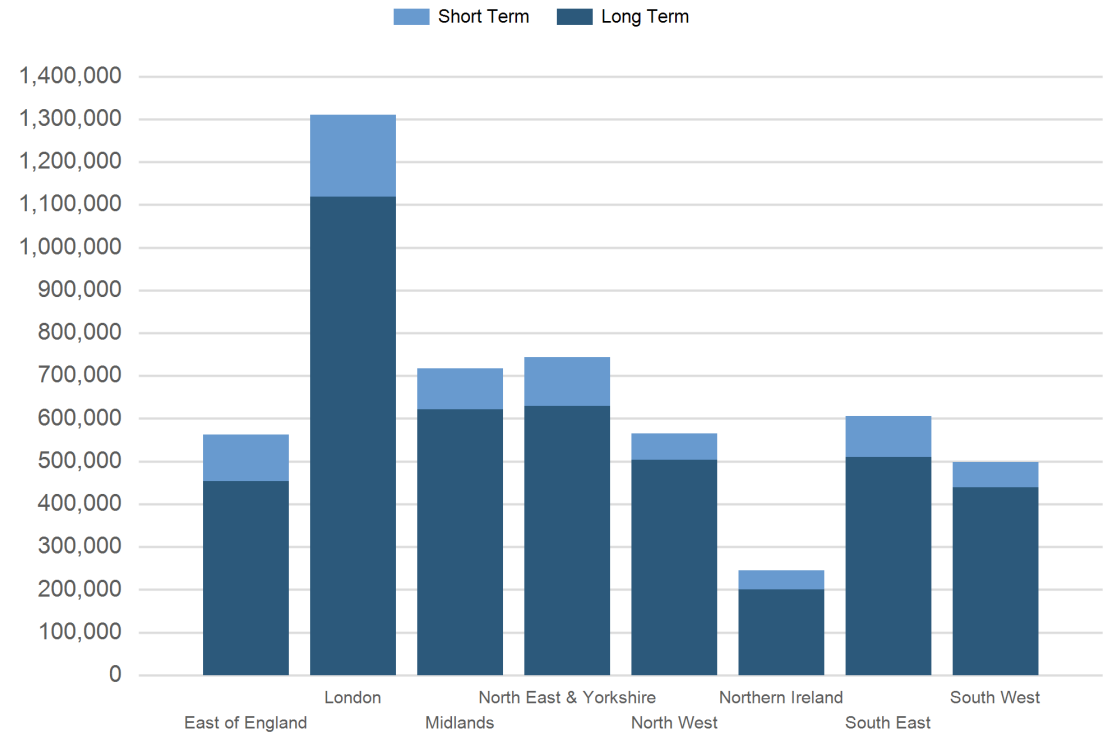

Table 2.1 Recorded volumes of immunoglobulin and patients on Ig therapy by SRIAP 2021/22

Region	Panel	Volume (g)	Patients
N.Ireland	Belfast	244,872	738
N.Ireland Total		244,872	738
London	North Central London	588,325	1,380
	North East London	210,577	628
	North West London	169,340	661
	South London	363,311	1,119
London Total		1,331,553	3,788
Midlands & East	Central / South West Midlands	294,434	653
	East Midlands	322,298	959
	East of England	534,557	1,537
	North / West Midlands	97,544	413
Midlands & East Total		1,248,832	3,562
North	Cheshire & Mersey	182,749	417
	Greater Manchester - Salford	221,785	439
	Greater Manchester & Lancs	158,213	613
	Humber, Coast & Vale	79,136	257
	North & West Yorkshire	228,795	733
	North East & Cumbria	270,479	814
	South Yorkshire	165,454	527
North Total		1,306,611	3,800
South	Kent & Medway	102,838	330
	Peninsula	176,609	452
	South West	245,509	662
	Southampton/Hampshire	230,145	732
	Sussex & Surrey	241,444	644
	Thames Valley	119,912	525
South Total		1,116,456	3,345
Total		5,248,325	15,233

Table 2.2 Recorded volume of immunoglobulin and patients on Ig therapy in the top 50 Trusts 2021/22

Trust	Volume (g)	Patients
University College London Hospitals NHS Foundation Trust	276,993	353
Royal Free London NHS Foundation Trust	250,377	615
Belfast Health and Social Care Trust	244,872	738
Cambridge University Hospitals NHS Foundation Trust	234,548	560
University Hospitals Birmingham NHS Foundation Trust	231,956	417
Salford Royal NHS Foundation Trust	201,451	331
Barts Health NHS Trust	185,841	483
The Newcastle Upon Tyne Hospitals NHS Foundation Trust	159,482	402
Leeds Teaching Hospitals NHS Trust	149,822	440
Sheffield Teaching Hospitals NHS Foundation Trust	140,817	329
Kings College Hospital NHS Foundation Trust	136,823	342
University Hospitals of Leicester NHS Trust	121,749	297
Nottingham University Hospitals NHS Trust	116,986	353
The Walton Centre NHS Foundation Trust	115,408	113
University Hospital Southampton NHS Foundation Trust	102,404	326
North Bristol NHS Trust	99,379	222
St Georges University Hospitals NHS Foundation Trust	95,596	183
Imperial College Healthcare NHS Trust	83,900	203
Frimley Health NHS Foundation Trust	83,758	234
Guys and St Thomas NHS Foundation Trust	83,327	299
Oxford University Hospitals NHS Foundation Trust	78,643	284
Lancashire Teaching Hospitals NHS Foundation Trust	69,256	126
Royal Cornwall Hospitals NHS Trust	63,390	88
University Hospitals Plymouth NHS Trust	55,093	193
Norfolk and Norwich University Hospitals NHS Foundation Trust	53,412	111

Table 2.2 Recorded volume of immunoglobulin and patients on Ig therapy in the top 50 Trusts 2021/22

Trust	Volume (g)	Patients
South Tees Hospitals NHS Foundation Trust	51,560	144
East Suffolk and North Essex NHS Foundation Trust	50,864	154
Maidstone and Tunbridge Wells NHS Trust	47,305	170
East Sussex Healthcare NHS Trust	46,270	109
Royal Brompton & Harefield NHS Foundation Trust	46,152	158
Brighton and Sussex University Hospitals NHS Trust	44,500	116
University Hospitals of North Midlands NHS Trust	44,225	150
Hull University Teaching Hospitals NHS Trust	43,026	138
East Kent Hospitals University NHS Foundation Trust	37,720	79
University Hospitals of Derby and Burton NHS Foundation Trust	37,601	146
Manchester University NHS Foundation Trust	36,992	190
Gloucestershire Hospitals NHS Foundation Trust	36,987	78
Royal Papworth Hospital NHS Foundation Trust	34,262	107
Southend University Hospital NHS Foundation Trust	32,622	88
Royal Devon and Exeter NHS Foundation Trust	31,761	94
Mid Yorkshire Hospitals NHS Trust	31,397	97
Liverpool University Hospitals NHS Foundation Trust	31,197	111
Royal United Hospitals Bath NHS Foundation Trust	31,120	79
Great Ormond Street Hospital for Children NHS Foundation Trust	28,864	212
Western Sussex Hospitals NHS Foundation Trust	28,748	86
Mid Essex Hospital Services NHS Trust	28,260	89
Portsmouth Hospitals NHS Trust	26,185	94
Great Western Hospitals NHS Foundation Trust	25,795	54
Epsom and St Helier University Hospitals NHS Trust	25,446	119
Somerset NHS Foundation Trust	25,150	59

Figure 2.1 Monthly recorded volume of immunoglobulin by regime 2021/22

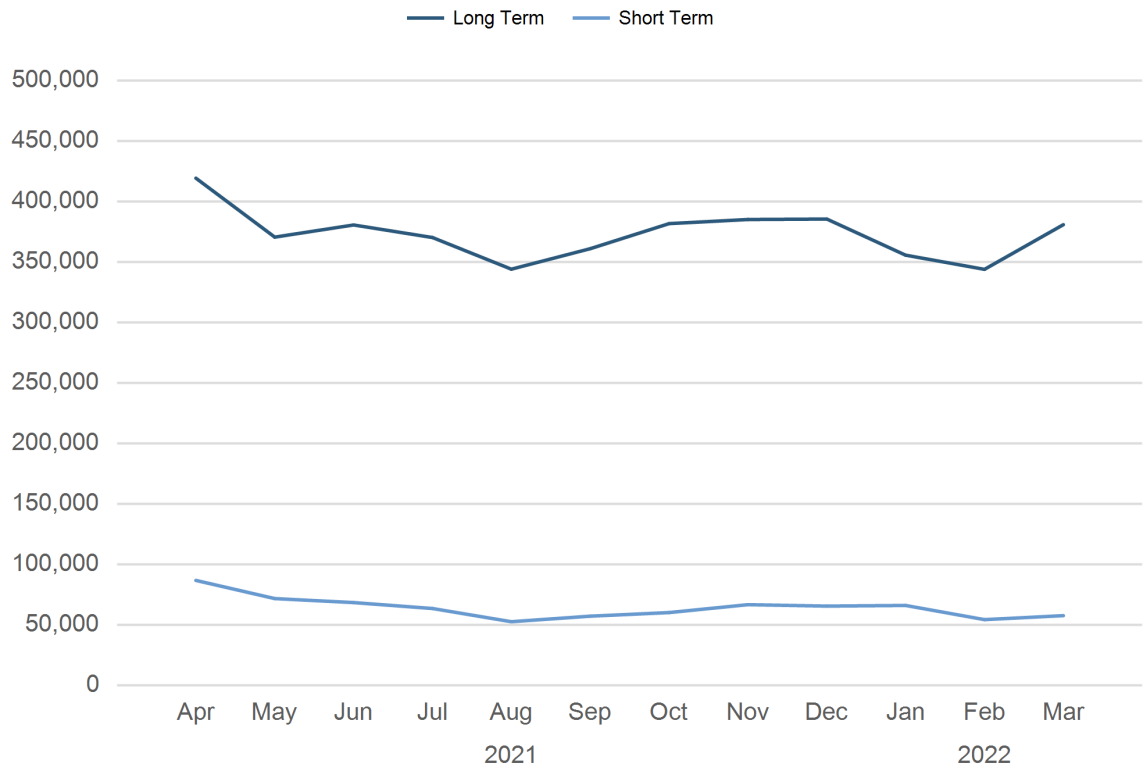

Figure 2.2 Yearly recorded volume of immunoglobulin by regime 2017/18 - 2021/22

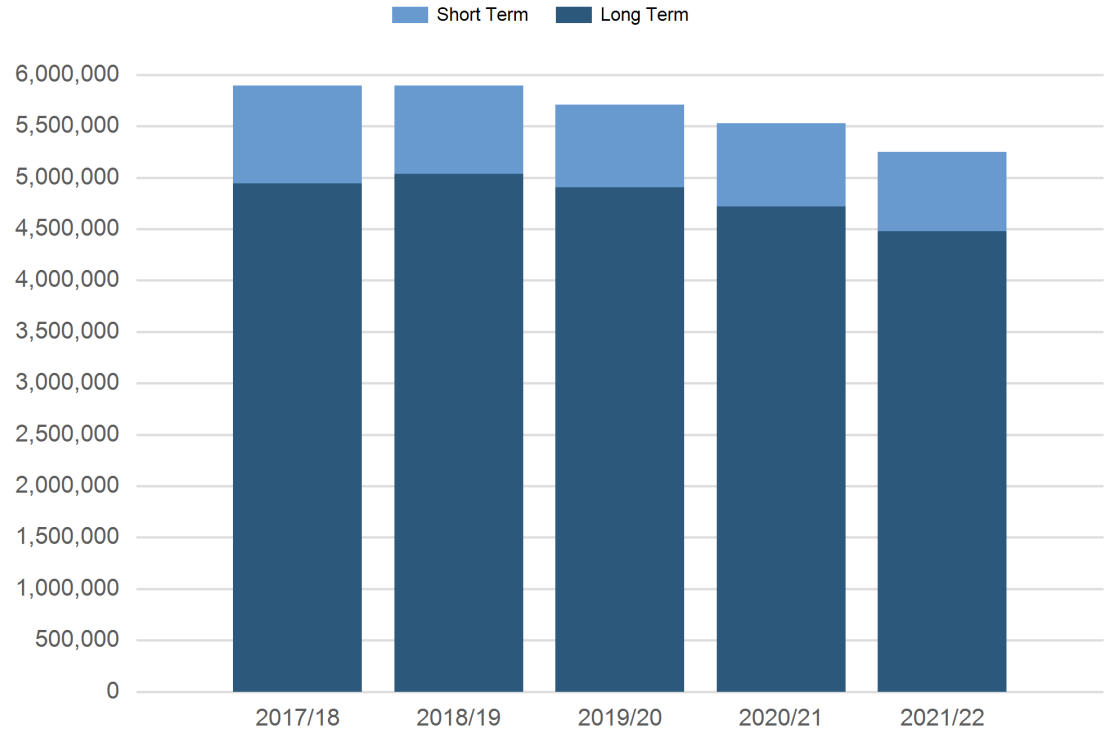

Figure 2.3 Monthly recorded volume of immunoglobulin by speciality 2021/22

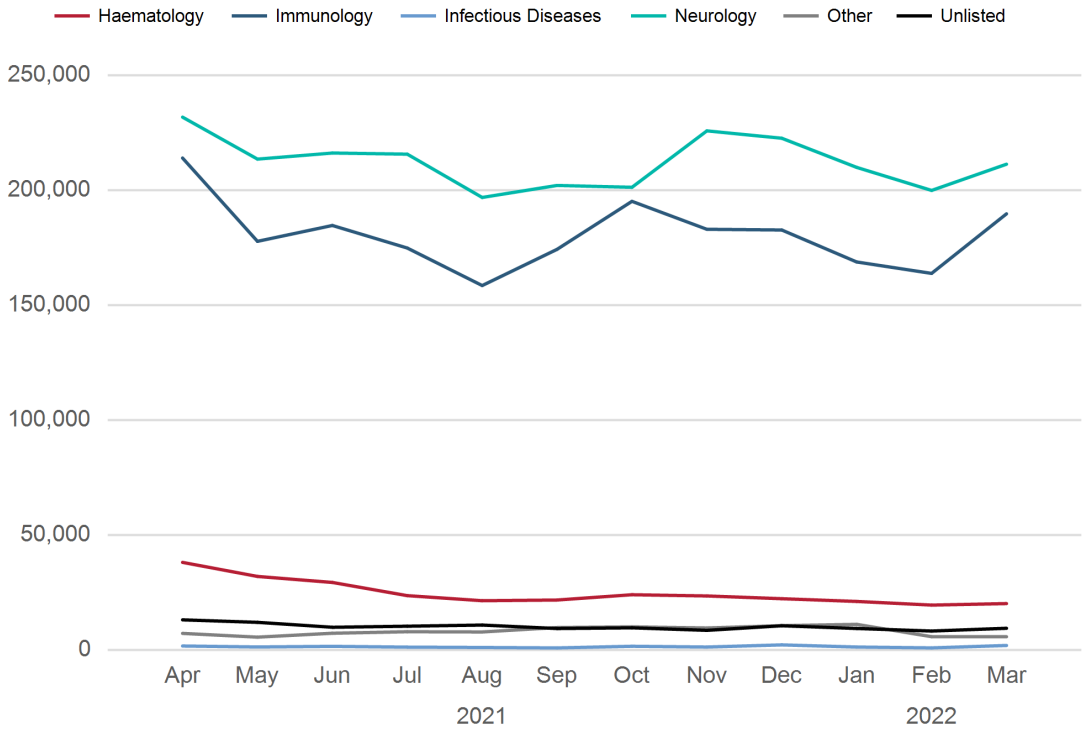

Figure 2.4 Yearly recorded volume of immunoglobulin by speciality 2017/18 - 2021/22

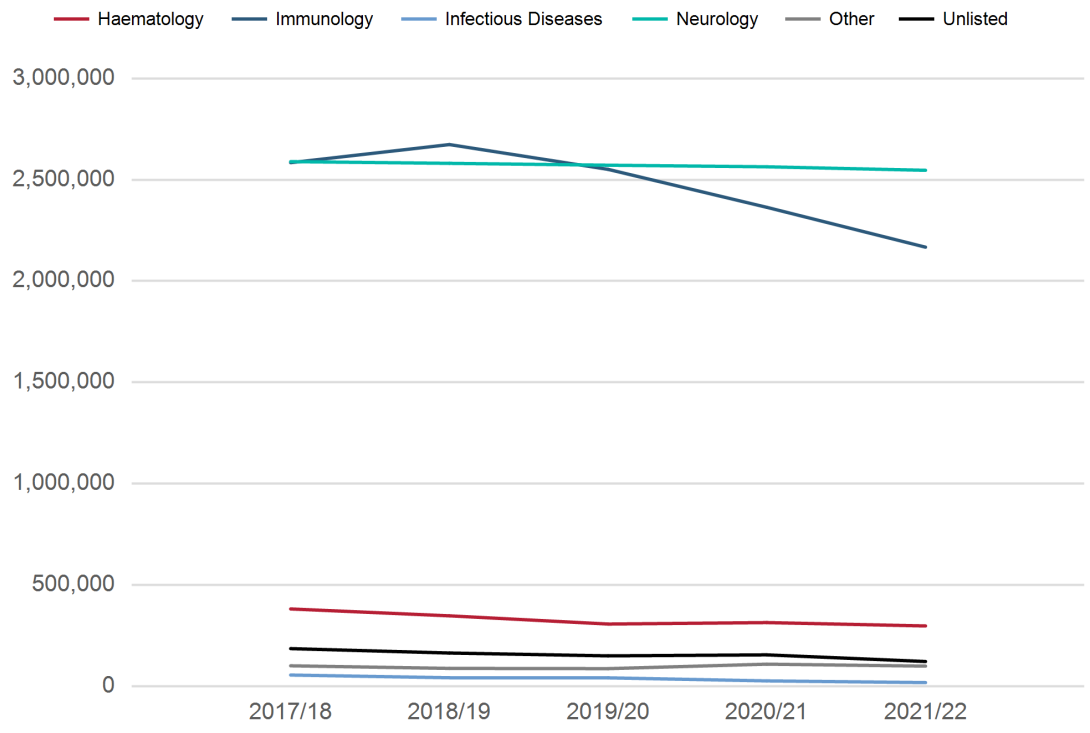

Table 3.1 Recorded volumes of immunoglobulin by brand 2021/22

Product Type	Supplier	Brand	Long Term	Short Term	Total
Intravenous			3,233,635	765,897	3,999,532
	Biotest	Intratect 10%	318,744	123,580	442,324
	Biotest	Intratect 5%	68,046	35,575	103,621
	Biotest	Pentaglobin	670		670
	BPL	Gammaplex 10%	53,315	37,687	91,002
	BPL	Gammaplex 5%	5,970	2,350	8,320
	CSL	Privigen	1,562,818	159,304	1,722,122
	Grifols	Flebogamma 5%	154,758	20,273	175,030
	Grifols	Gamunex 10%	214,118	14,855	228,973
	LFB	Iqymune 10%	163,516	47,677	211,193
	Octapharma	Octagam 10%	495,136	130,231	625,367
	Octapharma	Octagam 5%	13,100	2,870	15,970
	Octapharma	Panzyga	82,440	136,644	219,084
	Takeda	Gammagard	600		600
	Takeda	Kiovig	100,406	54,852	155,257
Sub-cutaneous			1,244,093	4,699	1,248,792
	BPL	Subgam	111,072	5	111,077
	CSL	Hizentra 20%	542,254	2,512	544,766
	Octapharma	Cutaquig 16.5%	10,657		10,657
	Octapharma	Gammanorm	282,159	742	282,901
	Takeda	Cuvitru	241,720	685	242,405
	Takeda	HyQvia	55,478	755	56,233
	Takeda	Subcuvia 16%	704		704
Total			4,477,728	770,596	5,248,325

Figure 3.1.1 Monthly number of patients on IV and SC immunoglobulin therapy 2021/22

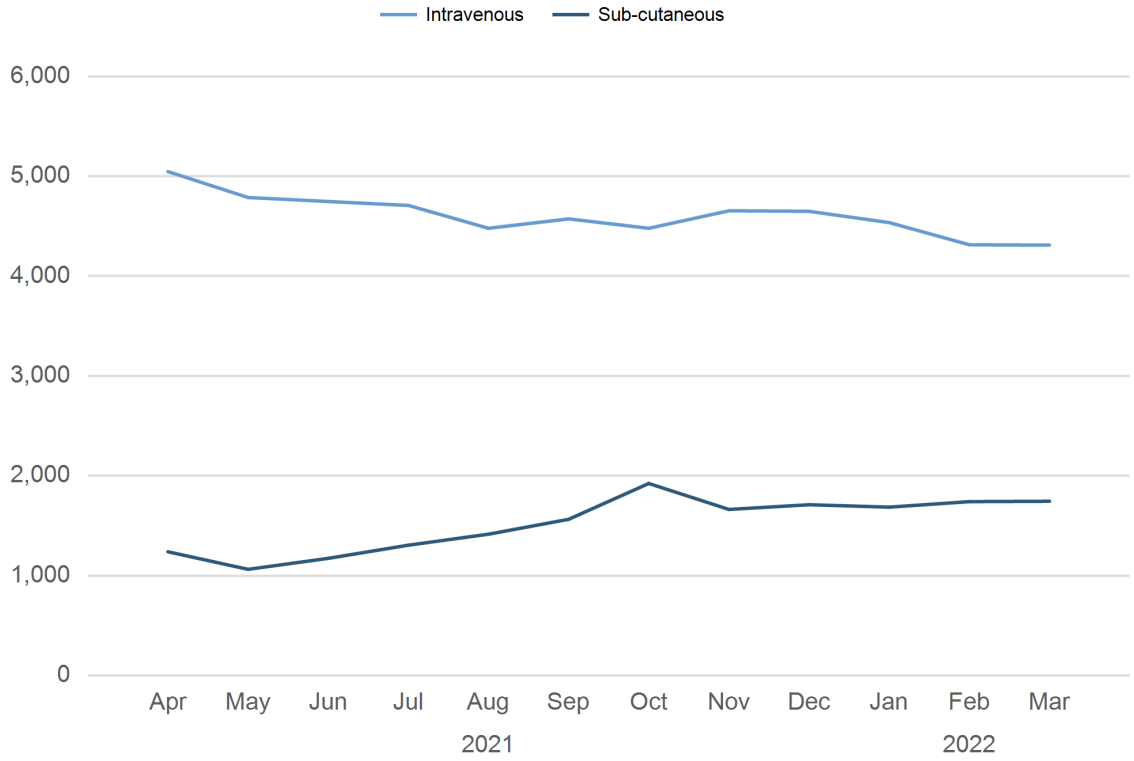

Figure 3.1.2 Yearly number of patients on IV and SC immunoglobulin therapy 2021/22

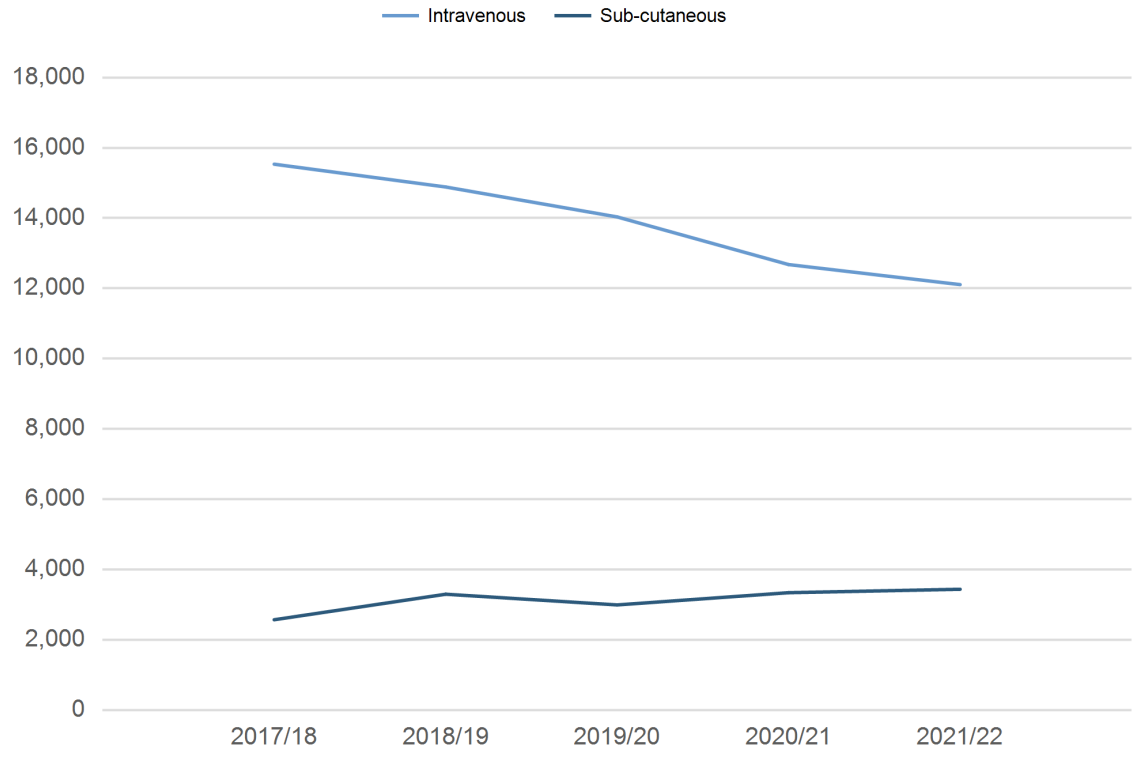

Figure 3.2.1 Monthly recorded volume of IV and SC immunoglobulin 2021/22

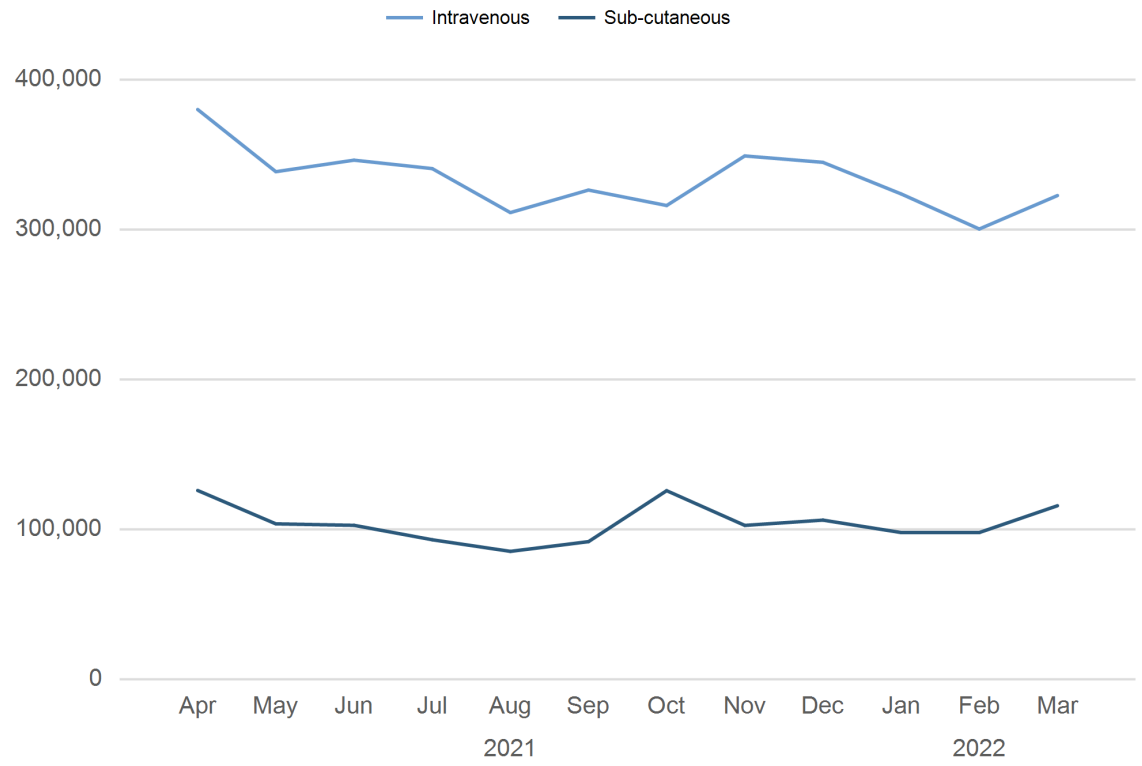

Figure 3.2.2 Yearly recorded volume of IV and SC immunoglobulin 2021/22

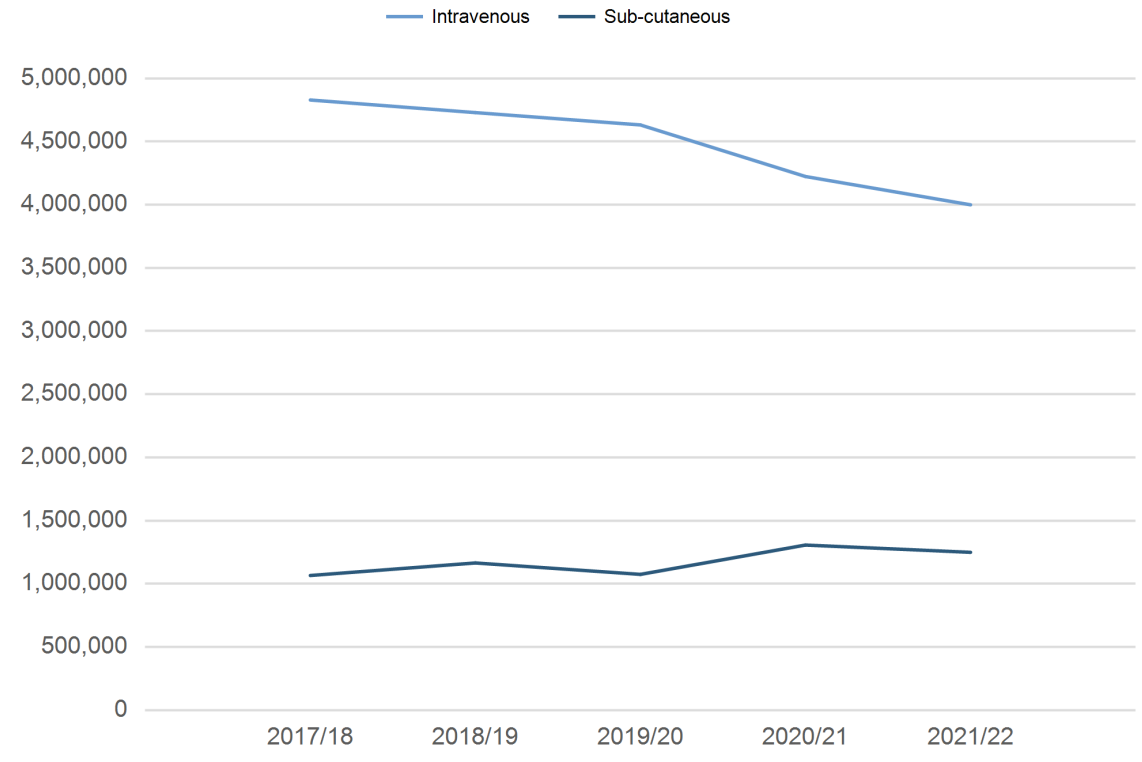

Figure 3.3 Monthly recorded volume of the top 10 IV immunoglobulin products 2021/22

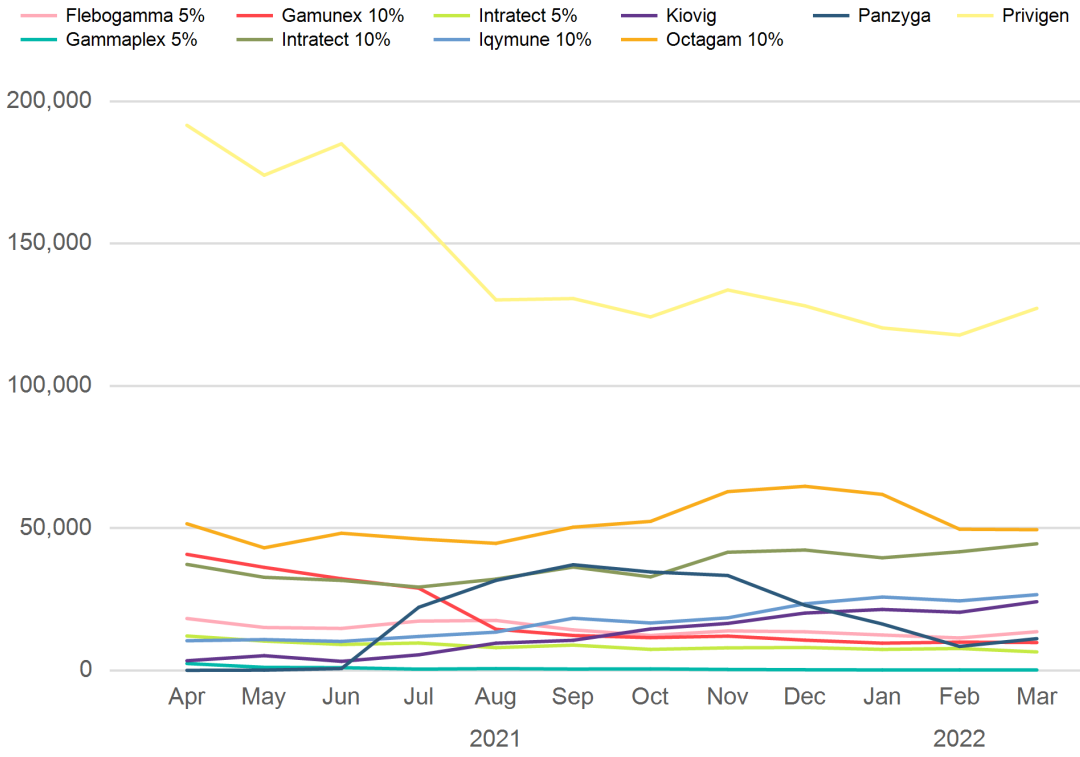

Figure 3.4 Yearly recorded volume of the top 10 IV immunoglobulin products 2017/18 - 2021/22

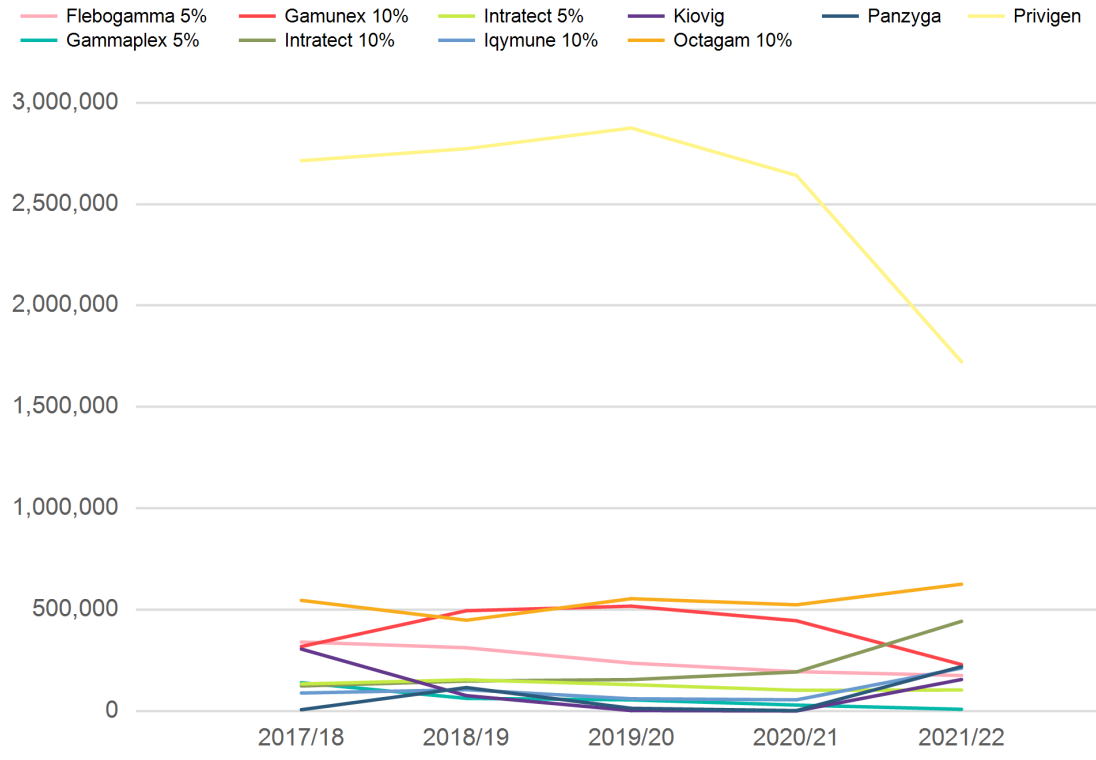

Figure 3.5 Monthly recorded volume of subcutaneous immunoglobulin products 2021/22

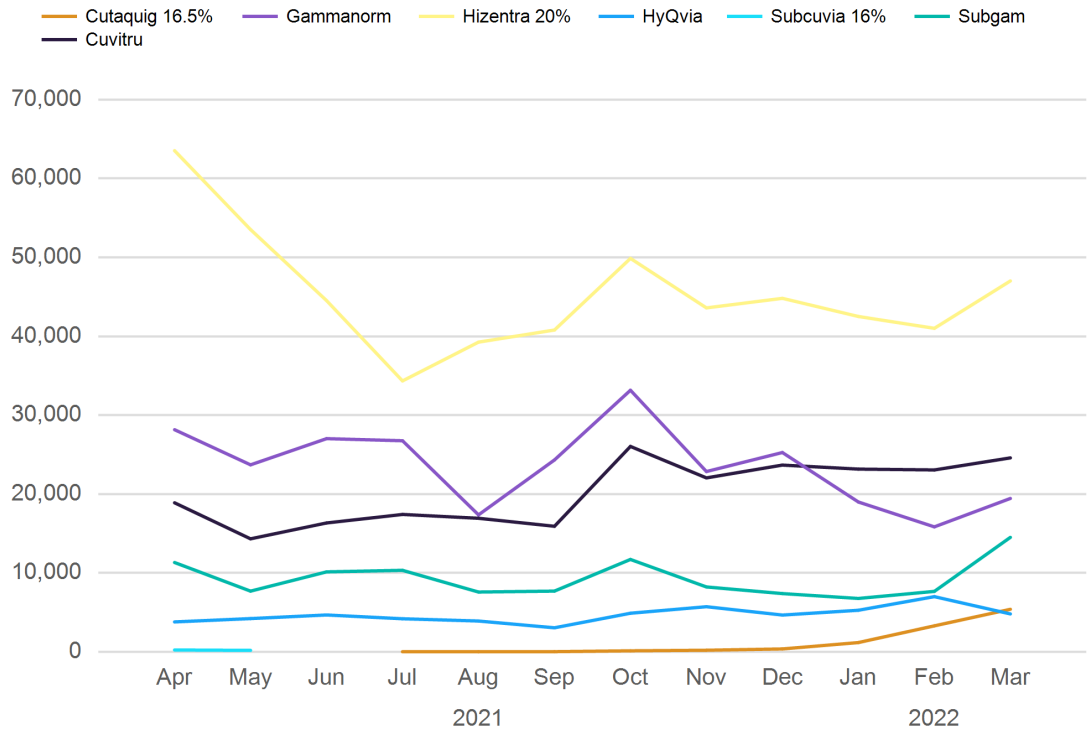

Figure 3.6 Yearly recorded volume of subcutaneous immunoglobulin products 2017/18 - 2021/22

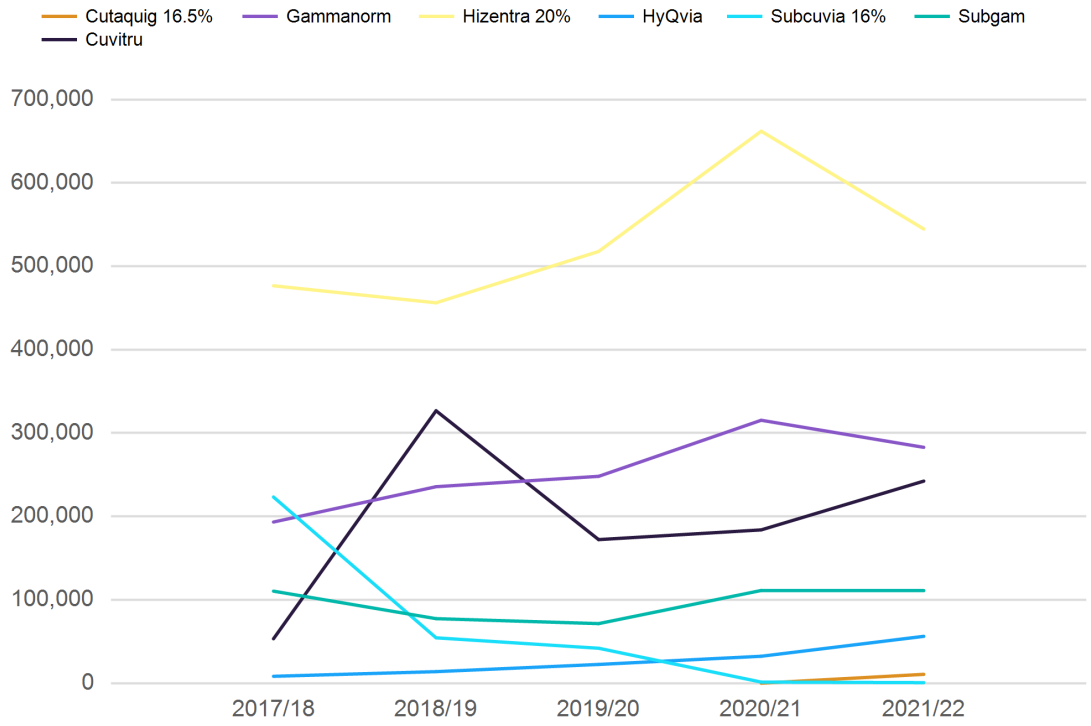

Figure 3.7 Monthly recorded volume of immunoglobulin by supplier 2021/22

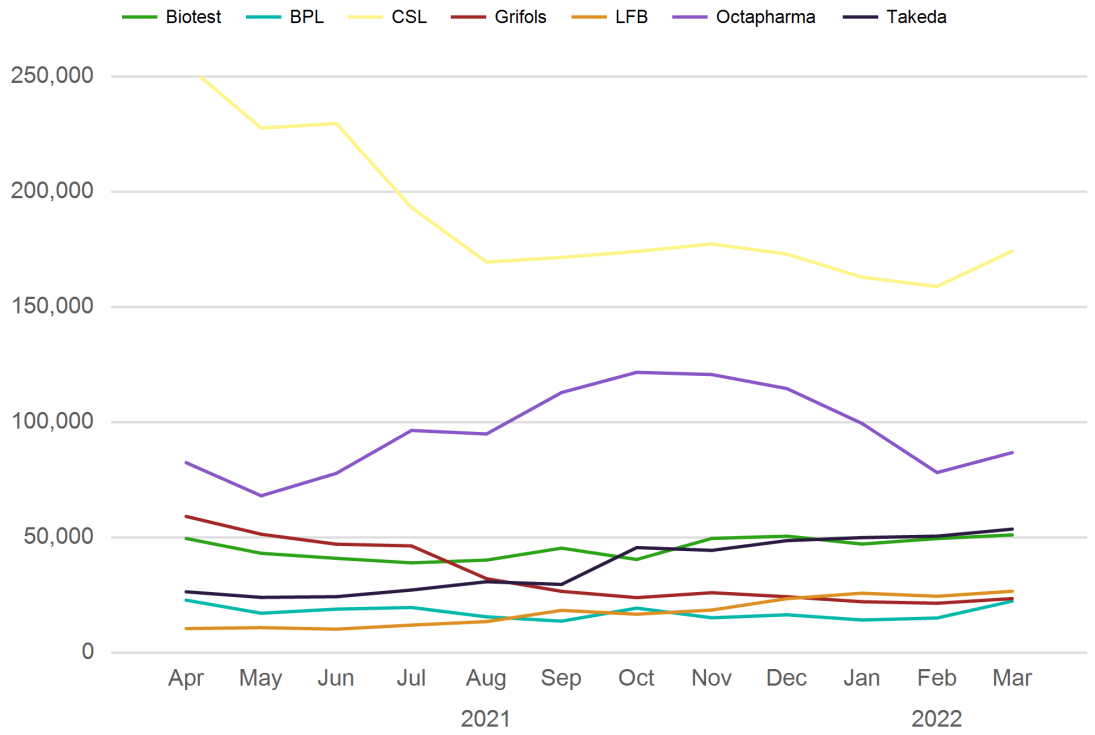

Figure 3.8 Yearly recorded volume of immunoglobulin by supplier 2017/18 - 2021/22

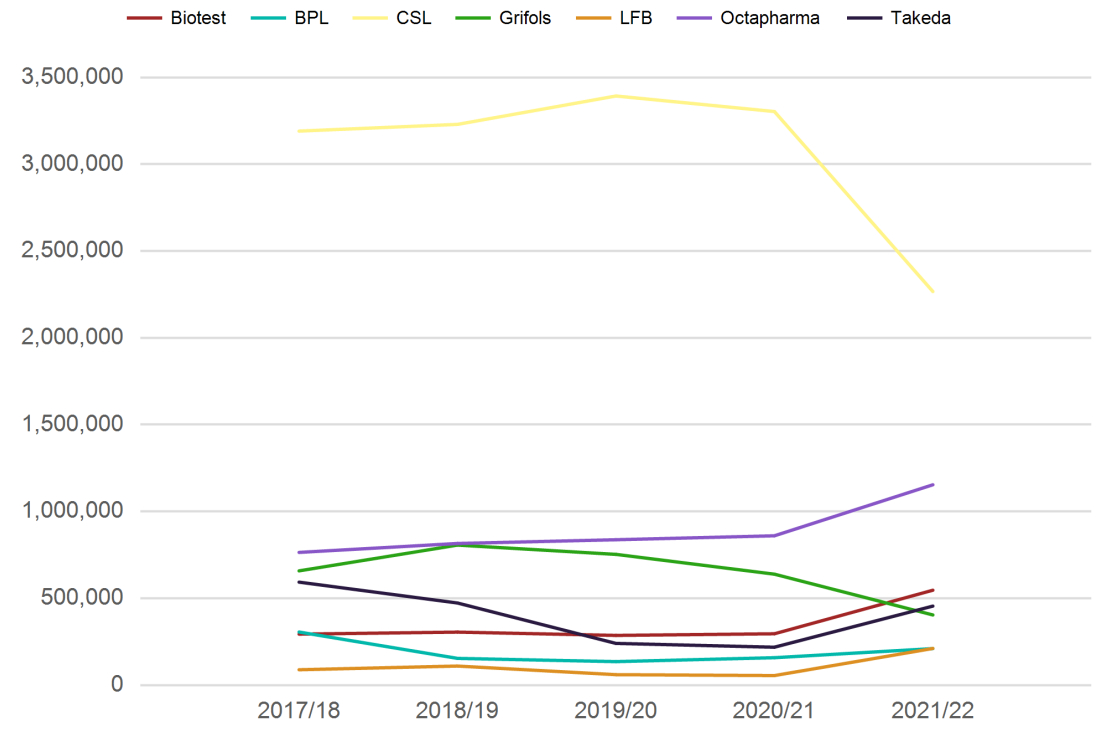

Table 4.1 Number of long-term patients on Ig therapy with Follow-Ups recorded 2017/18 - 2021/22

Year	2017/18	2018/19	2019/20	2021/21	2021/22
Long-term Patients	11,315	11,404	11,300	9,979	9,515
Patients with Follow-Up	8,778	7,929	7,400	5,967	4,921
Percentage	78%	70%	65%	60%	51%

Table 4.2 Number of short-term patients on Ig therapy with outcomes recorded 2017/18 - 2021/22

Year	2017/18	2018/19	2019/20	2020/21	2021/22
Short-term Patients	6,337	6,348	5,668	5,689	5,809
Patients with Outcomes	3,303	3,396	2,323	1,912	1,472
Percentage	52%	53%	41%	34%	25%

Table 4.3 ITP dosage data 2015 - 2022

Dose	2015	2016	2017	2018	2019	2022	2021	2022
1g/kg and under	44%	50%	64%	73%	81%	81%	80%	81%
2g/kg and over	56%	50%	36%	27%	19%	19%	20%	19%