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BACKGROUND AND IMPORTANCE

Intravenous immune globulin (IVIG) is used as replacement and immunomodulation therapy in a variety of autoimmune and inflammatory disorders. The increase in IVIG prescription is a global problem, as it is a scarce, risky, and high-cost drug, and its use after the Covid pandemic has worsened this scenario. The increasingly frequent supply disruptions reinforce the need for judicious and well-founded use of this blood-derived drug.

AIM AND OBJECTIVES

To describe the utilization of IVIG in order to implement a strategic plan for the rational use of this drug.

MATERIALS AND METHODS

- Observational, retrospective study, polyvalent hospital;
- 2-year period (2022-2023);
- Patients with IVIG prescriptions;
- Variables analyzed: demographics (age, gender) indication (replacement *versus* immunomodulation therapy), IVIG dosage (to calculate global consumption);
- Immunomodulation therapy indications further divided: neuroimmunologic disorders, autoimmune/inflammatory conditions, infections and infection-related disorders, and alloimmune processes;
- Electronic medical records were consulted to collect this information, and statistical analysis was done in Excel®.

RESULTS

• 81 patients were included (41 female, 50.6%), 65 adults (80%) and 16 children. The average age of adult patients was 60 years

- (ranging from 23 to 91 years);
- The total amount of IVIG consumed was 12655 grams (5680 grams in 2022, 6975 grams in 2023);
- Regarding the indication, 10 patients were prescribed IVIG as replacement therapy (7 of which SARS-CoV-2 related);
- 71 patients received IVIG for immunomodulation therapy. In this subgroup of patients, the main indications were neuroimmunologic disorders (33) and autoimmune/inflammatory conditions (32).
- Among patients receiving IVIG for neuroimmunologic disorders, 26 (79%) were diagnosed with Guillain-Barré Syndrome. In the subgroup of patients with autoimmune/inflammatory conditions, the 3 major indications were Immune thrombocytopenia (44%), Myasthenia gravis (22%) and Autoimmune encephalitis (16%).
- Considering the indications approved for IVIG, 26 (32%) patients were prescribed IVIG for off-label indications.

	IVIG indication	n (patients)
Replacement therapy		10
Immunomodulation therapy	Neuroimmunologic disorders	33
	Autoimmune/inflammatory conditions	32
	Infections and infection-related	
	disorders	2
	Alloimmune processes	4

Table 1 - IVIG prescription indications



Immunomodulation therapy

- Neuroimmunologic disorders
- Autoimmune/inflammatory conditions
- Infections and infectionrelated disorders
- Alloimmune processes



Chart 1 - Distribution of indications for IVIG in the "Immunomodulation therapy" subgroup of patients

CONCLUSION AND RELEVANCE

Our results show that the major indications for IVIG prescription were neuroimmunologic disorders and autoimmune/inflammatory conditions, particularly Guillain-Barré Syndrome and Immune thrombocytopenia, respectively. Considering that one third of prescriptions were for off-label indications, and the increasing concern about shortages of IVIG, a future development should focus on the elaboration of protocols for optimizing IVIG utilization, particularly in off-label indications, and an emergency plan in case of eventual future prolonged disruptions of supply of this high impact drug.

