DRUG UTILISATION STUDY OF HUMAN NORMAL IMMUNOGLOBULIN IN HAEMATOLOGICAL AND ONCOLOGIC PATIENTS IN A TEACHING PAEDIATRIC HOSPITAL

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BACKGROUND
Approved therapeutic indications for Human Normal Immunoglobulin (HNIg) in paediatric population are: primary immunodeficiency syndromes, Hypogammaglobulinaemia post stem cell transplantation, AIDS with recurrent infections, Primary immune thrombocytopenia (ITP), among other ones. Apart from those, HNIg are also used off label in many clinical indications.

PURPOSE
To describe the use of the HNIg in haematological and oncologic patients of a paediatric teaching hospital.

MATERIAL AND METHODS
We collected and analysed data from all patients treated with HNIg during 8 months in 2017, based on medical history records. The variables analysed were: clinical area, patient’s diagnosis indication (replacement or immunomodulation), and the agreement between prescribed dose and the hospital guidelines. Our HNIg dosing guidelines are 300-400mg/kg every 3-4 weeks as a replacement therapy and 1000-2000mg/kg of HNIg per course as immunomodulatory indication.

RESULTS
After analysing data from patient’s records, 74 patients received HNIg prescribed by an oncologist or haematologist, of which 54 were hematologic patients and 20 were oncologic.

Haematology indication

- [28/54] Low HNIg levels during intensive chemotherapy
- [28/54] Replacement therapy after HSCT
- [12/54] Immunomodulation
- [9/54] Active viral infections in LLA


Oncology indication

- [16/20] Replacement therapy in high risk of infections
- [4/20] Active viral infection

Any patient received HNIg for immunomodulation purposes

- Treatment per protocol : [5/16] Langerhans cell histiocytosis
- Poor HNIg plasma levels after high intensity chemotherapy or high cumulative chemotherapy dose: [5/16] neuroblastoma; [3/16] central nervous system tumours; [3/16] other systemic oncologic problems

All except one HNIg prescription adhered to our centre dosing policy; the exception was for treating an unresponsive unclassified active infection.

CONCLUSION
Despite HNIg in haematological and oncologic paediatric patients are used off label, there are many indications in daily practice. Further studies are necessary in paediatric patients to increase the evidence and optimize the resources.