

Auditing the Practices of Intravenous Immunoglobulin Administration in a Tertiary Pediatric Hospital in the United Arab Emirates

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Objectives

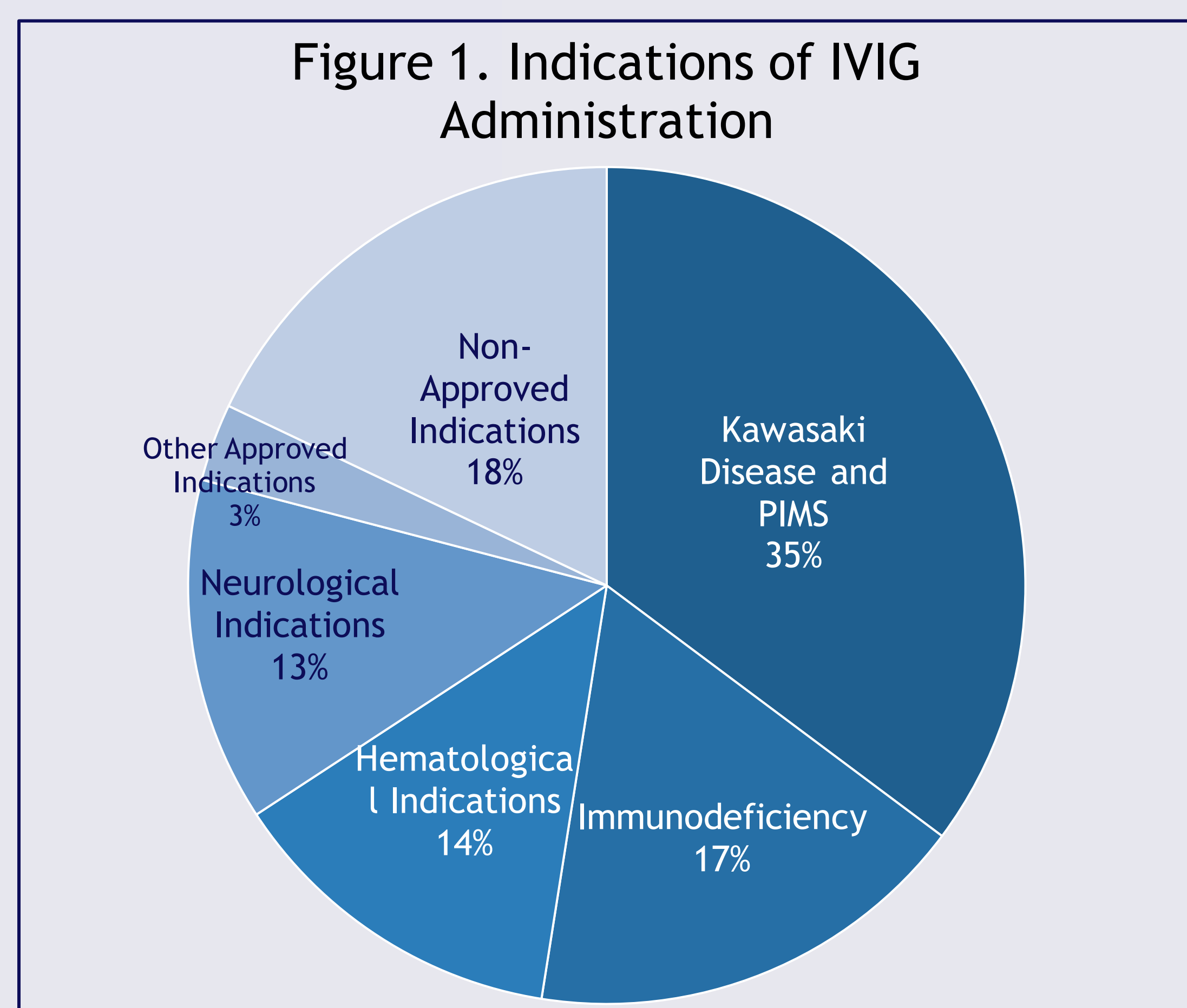
- To evaluate the IVIg administration practices at a tertiary pediatric hospital in the United Arab Emirates (UAE)

Methods

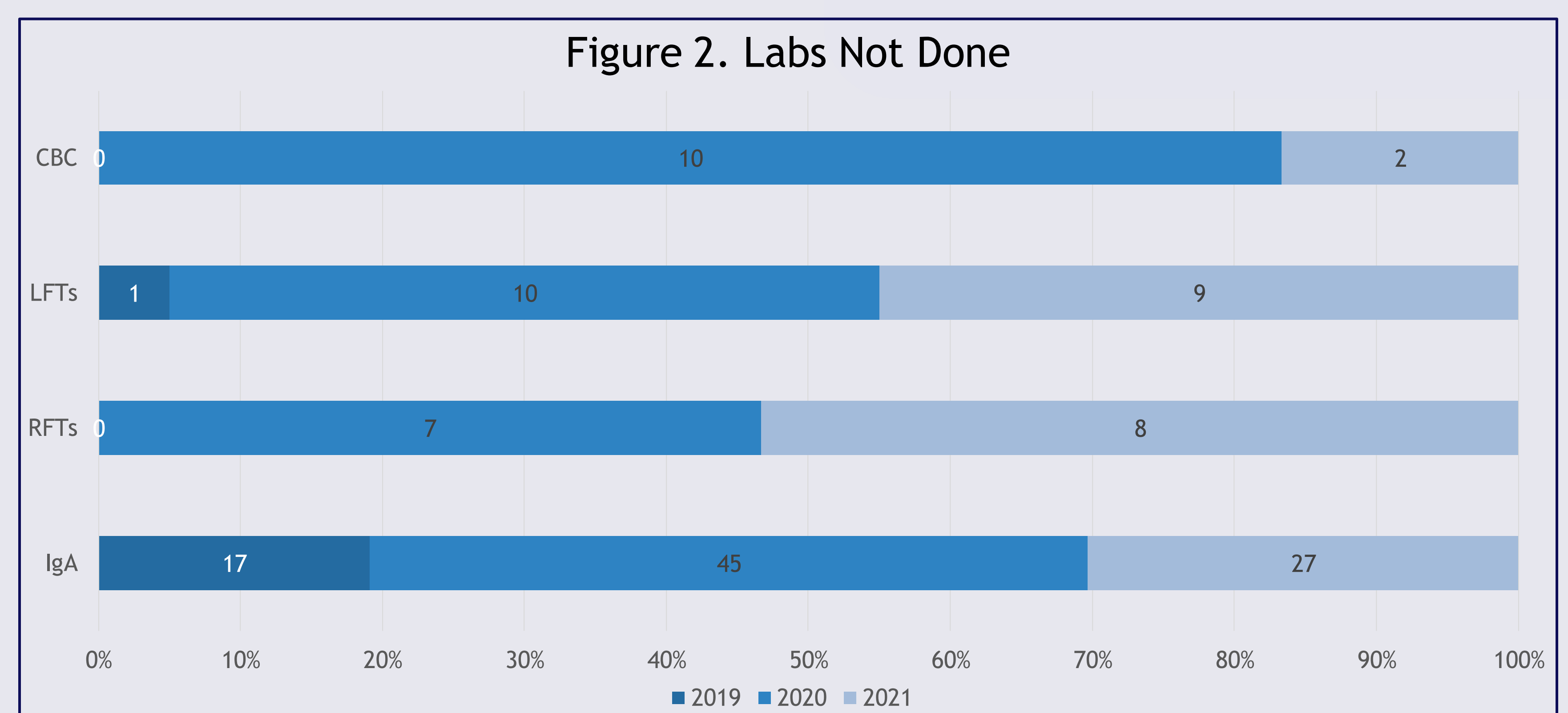
A retrospective review of electronic health records was conducted, including all patients below 18 years of age who received IVIg for various diagnoses between January 2019 and December 2021. Data was then analyzed through SPSS, and practices were compared to our hospital's IVIg Administration Guidelines approved in 2018.

Results

- Total encounters: 301 (79% on inpatient wards, 16.5% in PICU, 4.5% in NICU)



- 46% of patients (N=139) had the required lab tests ordered before IVIG administration.



- Pre-medications were prescribed in 82% of the cases (N=248). Stand-by epinephrine ordered in 62% of the encounters (N=188).
- Out of the 66 patients with ADRs, only 2 did not receive pre-medications.

Table 1. IVIG Concentrations Used

	5%	10%
2019	7 (17%)	34 (83%)
2020	20 (18%)	91 (82%)
2021	4 (7%)	53 (93%)
TOTAL	31 (15%) 9.6% with ADRs	178 (85%) 36% with ADRs

Figure 3A. Rate of Adverse Reactions

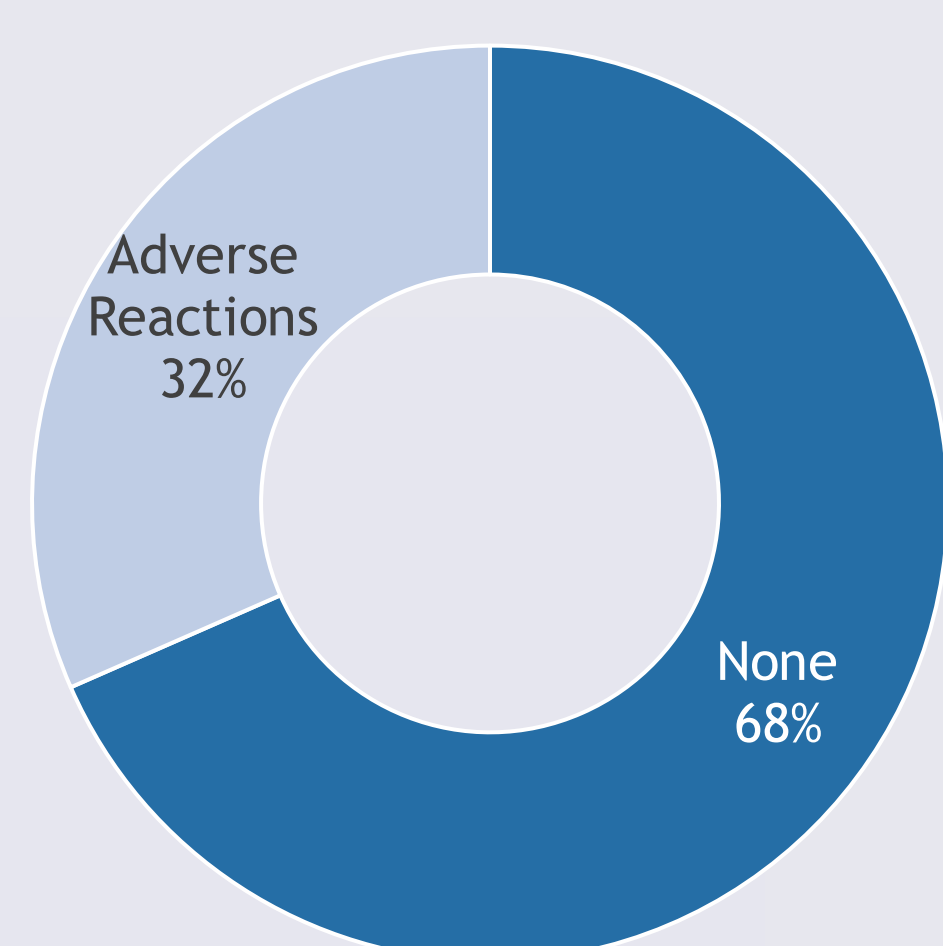
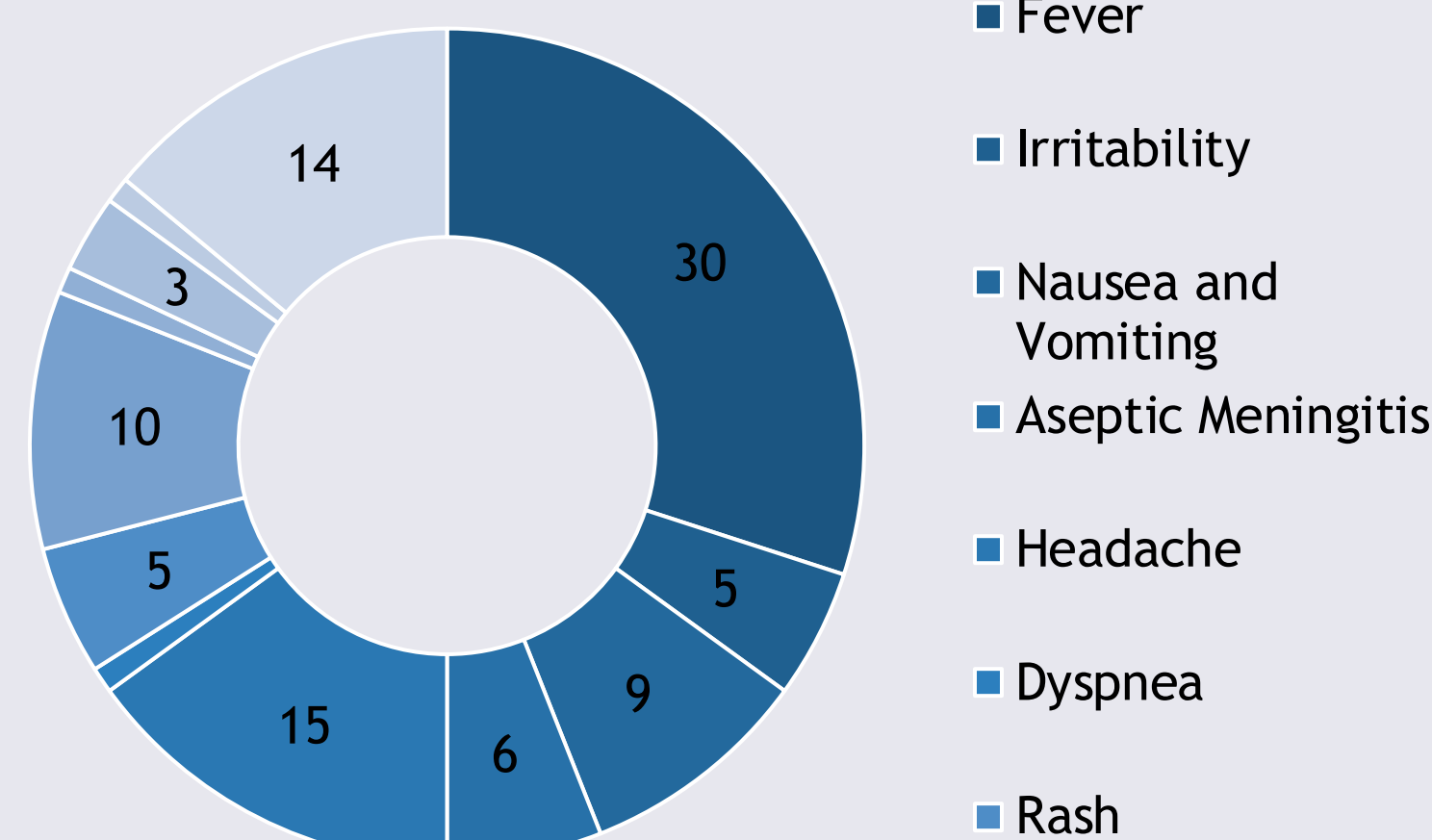


Figure 3B. Adverse Reactions Encountered



- There were inconsistencies in documenting infusion rates and justifications for extended durations.

Conclusions

Over the three-year audit period, we observed a consistent rise in the usage of IVIg, potentially influenced by the COVID pandemic and the ensuing PIMS cases. Adherence to our hospital's guidelines concerning pre-administration investigations and premedication varied across departments over time. Notably, despite the risk of anaphylaxis highlighted in the guideline, epinephrine was not always ordered. We recommend incorporating a comprehensive care-set into the hospital's EMR system, inclusive of essential orders and a documentation template. Given the worldwide shortage, it is suggested updating the current guidelines to specify approved indications, aiming to restrict its utilization.

References

- Fakhari, Z., Farsaei, S., & Sabzghabae, A. M. (2018). Predicting Factors for the Pattern of Intravenous Immunoglobulin Utilization in a Middle Eastern University Hospital. *Journal of research in pharmacy practice*, 7(4), 188–194. https://doi.org/10.4103/jrpp.JRPP_18_73
- Lee, J. J., Saffian, S. M., Makmor-Bakry, M., Islahudin, F., Alias, H., Ali, A., & Shah, N. M. (2022). Prescribing Practices of Intravenous Immunoglobulin in Tertiary Care Hospitals in Malaysia: A Need for a National Guideline for Immunoglobulin Use. *Frontiers in Pharmacology*, 13. <https://doi.org/10.3389/fphar.2022.879287>