

Knowledge and Practice of Prescribing Polyclonal Human Immunoglobulin Therapy by Doctors in Referral Teaching Hospitals in Khartoum In 2018

MASOUD S O¹ KAMAL H² ERWAN H H³

¹ Sudan Medical Specialization Board, Khartoum, Sudan.

² Associated professor of immunology, I. U. A., MD Clinical Immunology SMSB, MSC MHPE, U. Of K., Khartoum, Sudan.

³ Clinical Immunology Consultant, Assistant Professor, Soba University Hospital, Faculty of Medicine, University of Khartoum, Khartoum, Sudan.

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Introduction:

Intravenous immunoglobulins (IVIG) is used in the treatment of a large number of inflammatory and immunological conditions. It is obtained from fractionated plasma from thousands of blood donors. Hence the potential hazards of viral transmission, adverse reactions, the growing difficulties with obtaining safe plasma and health cost implications of all that. Not much is known about the magnitude of knowledge and factors affecting prescription of IVIG in Sudan.

Objectives:

- To evaluate the level of knowledge of consultants/specialists, registrars and medical officers/house officers regarding IVIG prescription and clinical utility.
- To assess IVIG best practice in relation to international recommendation.

Methods:

- Descriptive cross-sectional hospital base survey conducted between April and December 2018.
- Medical doctors, excluding immunologists, of different grades of specialization working in tertiary hospitals within Khartoum completed 384 unsupervised self-completed questionnaires (MCQ and self rating questions).
- Responses to the questions on the questionnaire were translated into a scoring system that corresponded to the number of correct answers. Then an overall score of the level of knowledge and different practices of using IVIG was classified into low, satisfactory and high rate scores.

Area of Knowledge / Theme of Practice Questions

- IVIG nature
- IVIG concentration in Sudan
- IVIG indication (known or not)
- Replacement therapy dose
- Immunomodulation therapy dose (more than one option permitted)
- Name of the main indications of using IVIG
- International recommendation regarding IVIG brand interchange
- Knowledge on the existence of premedication.
- IVIG side effects
- IVIG serious adverse events
- IVIG common adverse events
- Safe & licensed IVIG supplier in Sudan
- IVIG cost in Sudan
- IVIG prescription experience.
- Most common IVIG indication in Sudan
- IVIG prescription frequency
- Use of pre-medication before IVIG
- pre-medication drug options before IVIG
- Pre infusion investigations
- Investigations options before IVIG
- Serious side effect management
- IVIG availability

Results:

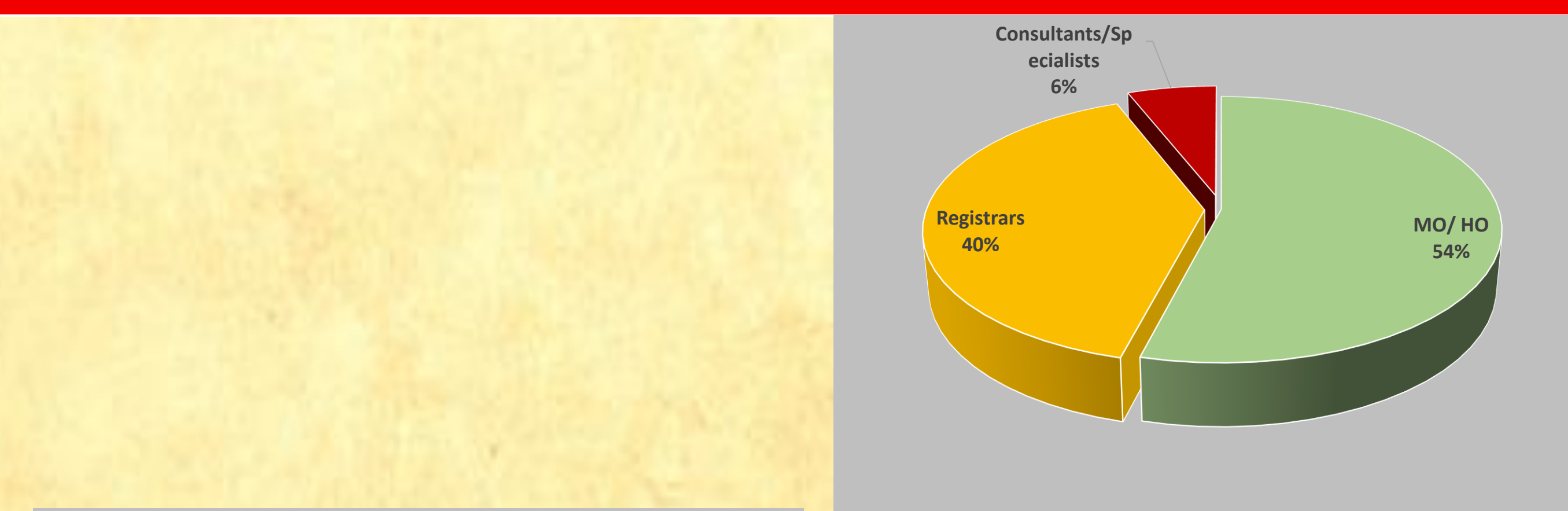


Figure 1: Categorization of study subjects according to their grades

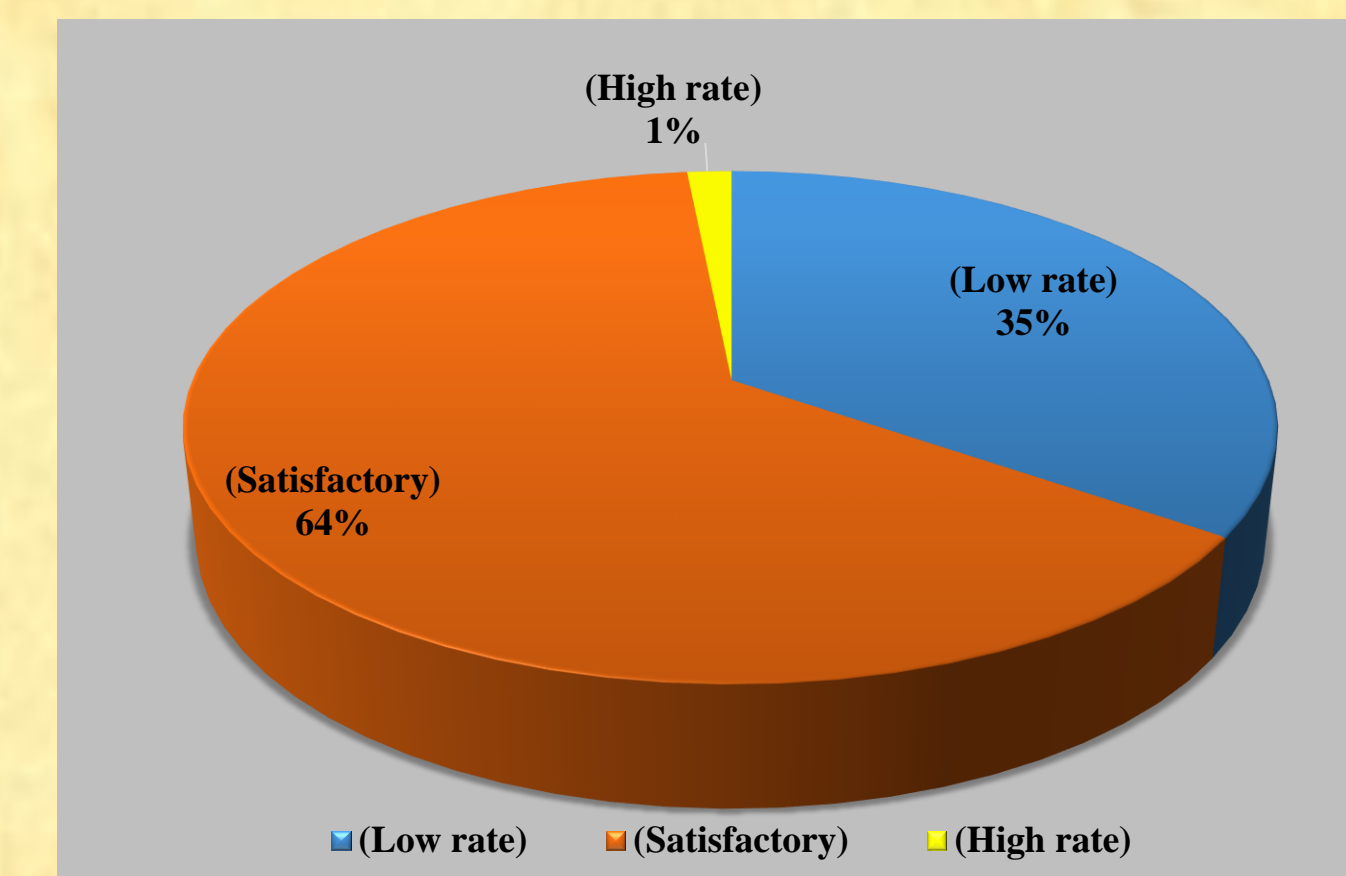


Figure 2: Overall classification of level of Knowledge by number of correct answers among all participants. Low:(0-6), Satisfactory (7-13), High (14-20)

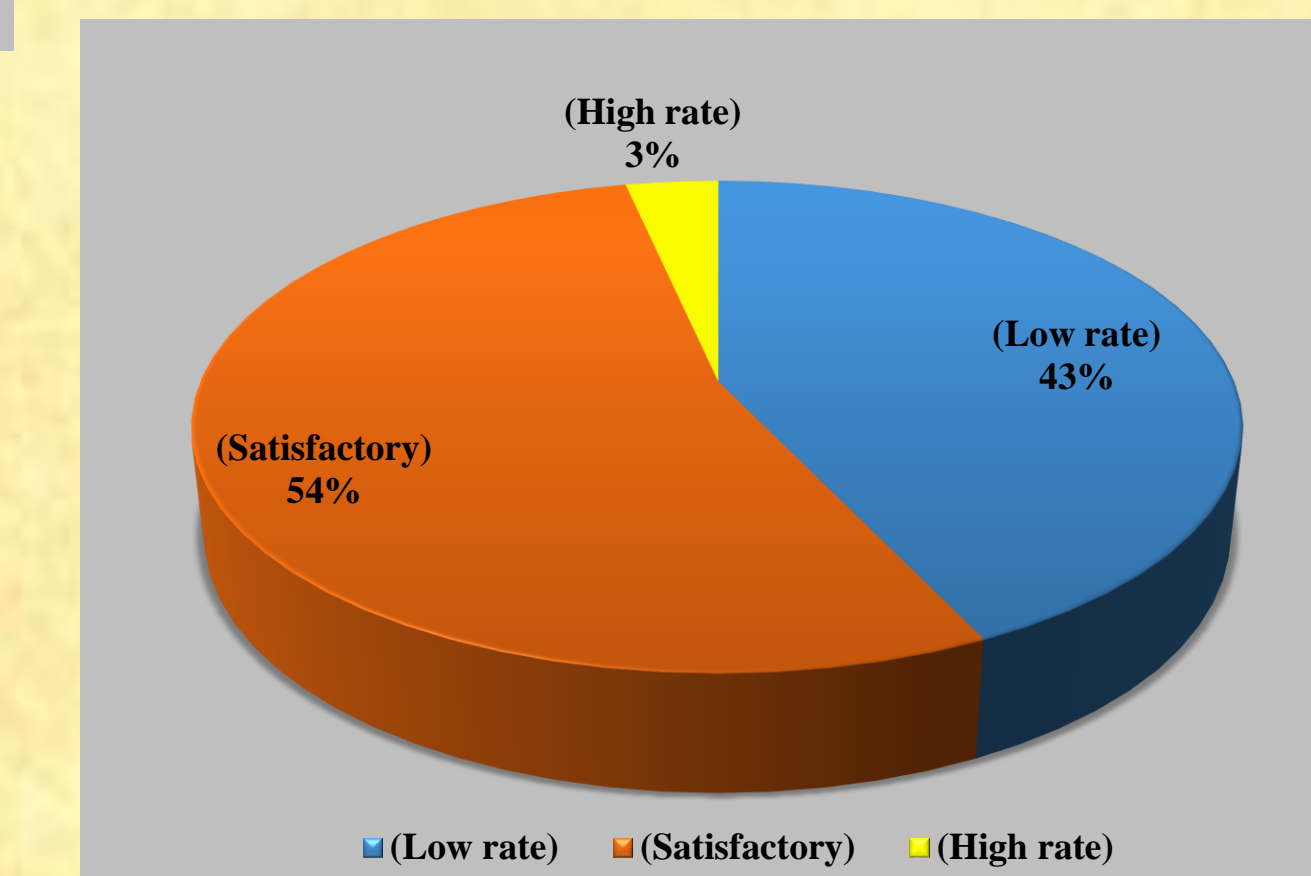


Figure 4: Overall classification of adequacy of IVIG practice among all participants. Low:(0-6), Satisfactory (7-13), High (14-20)

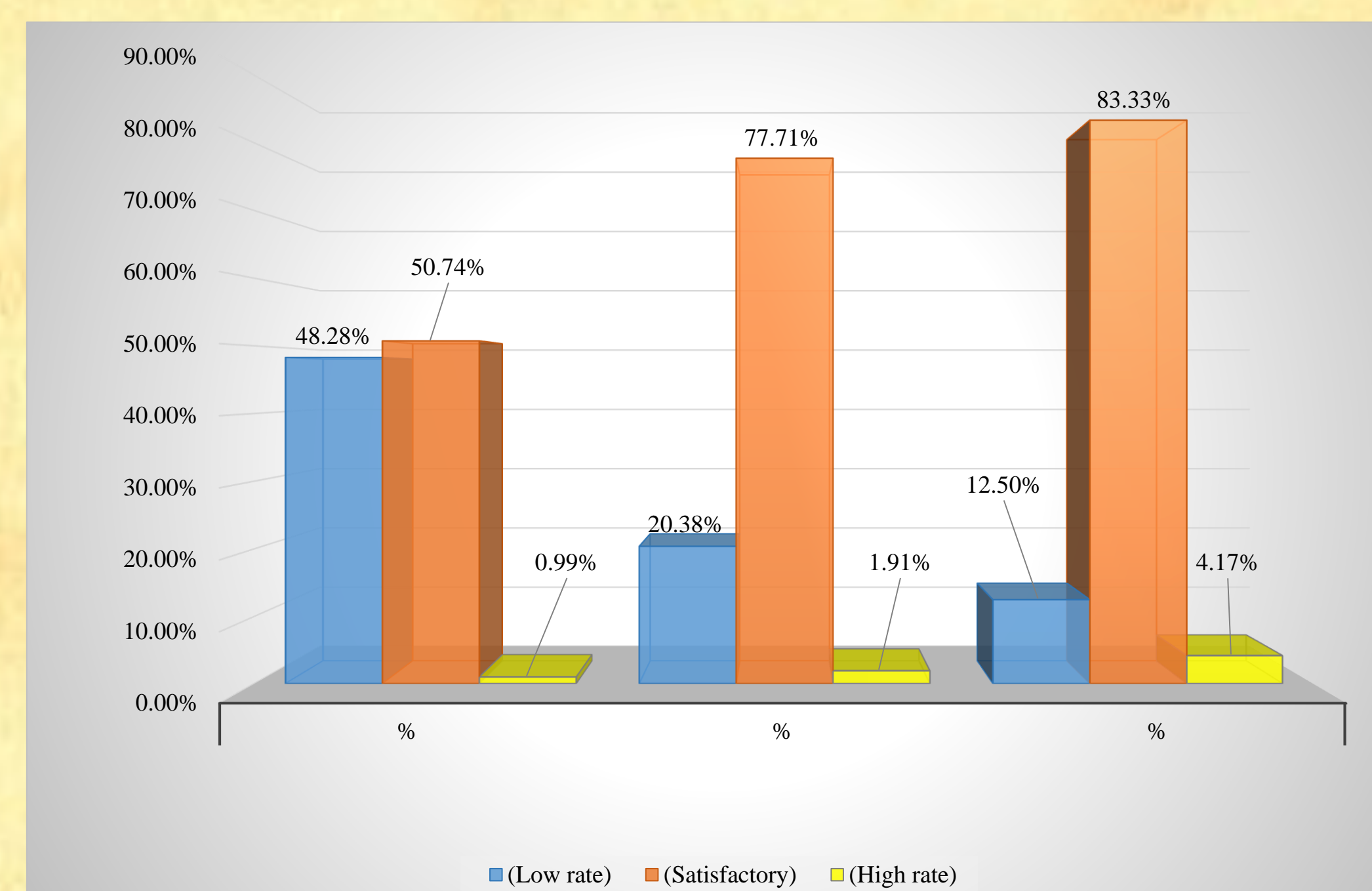


Figure 3: Overall classification of level of Knowledge by number of correct answers among different grades of participants . Low:(0-6), Satisfactory (7-13), High (14-20)

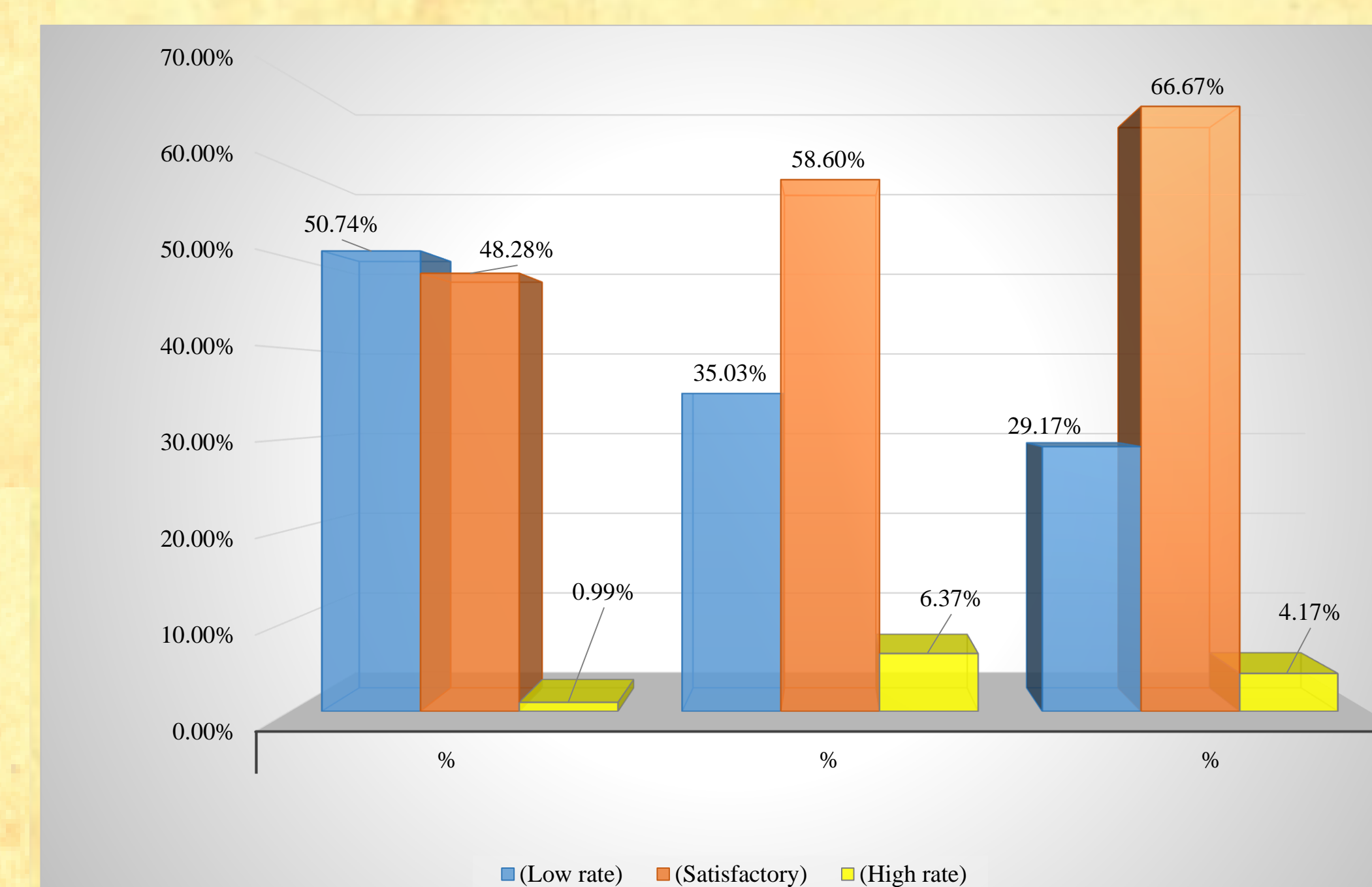


Figure 5: Overall classification of adequacy of IVIG practice among different grades of participants . Low:(0-6), Satisfactory (7-13), High (14-20)

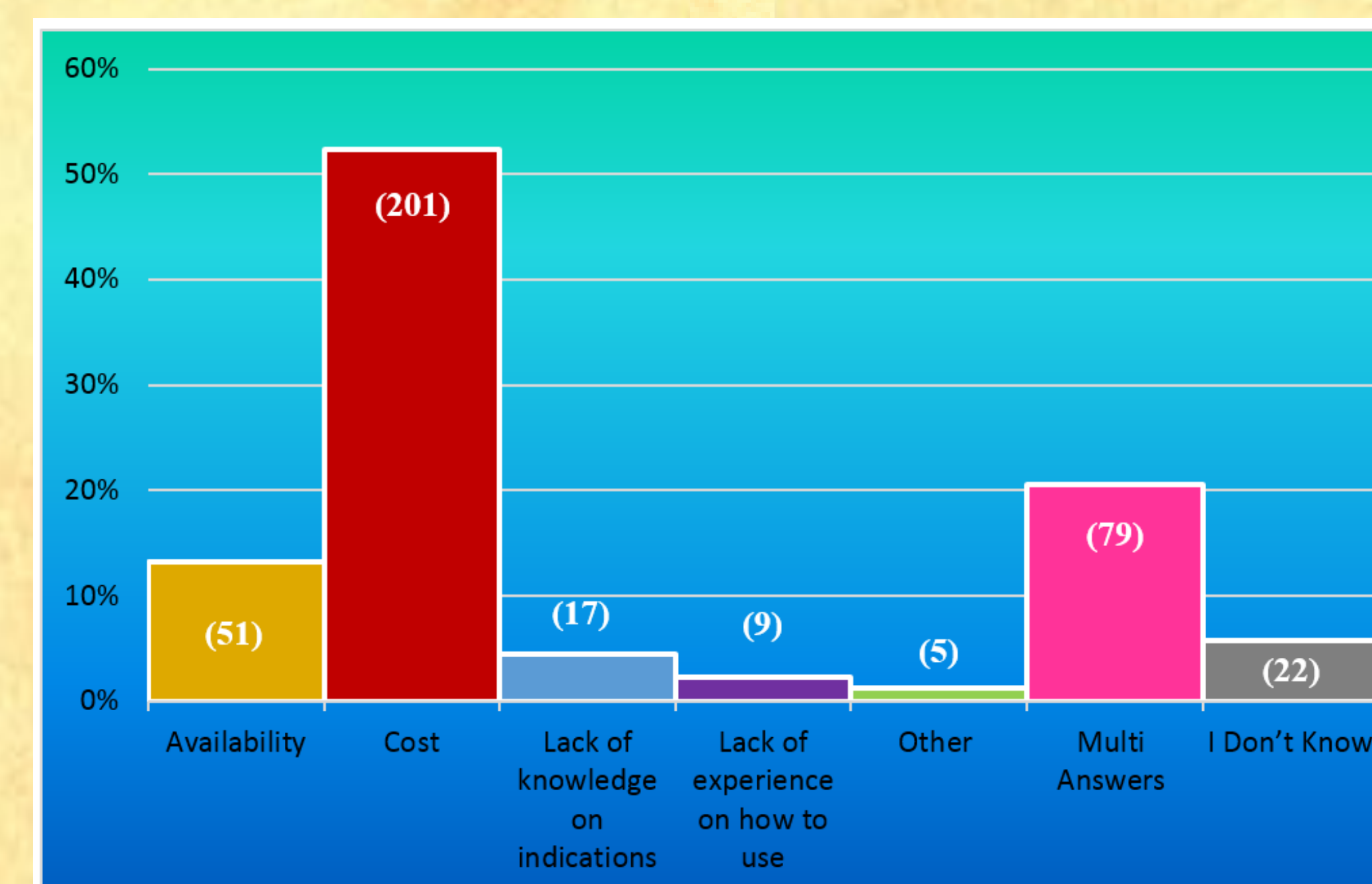


Figure 6: Displays obstacles factors facing IVIG use in Sudan according to the physicians, with the cost being the most effectual factor

Conclusion:

- Good awareness about IVIG was found among consultants and specialists, however, 21% did not prescribe IVIG nor used these products.
- In this study there is absence of adequate knowledge regarding IVIG uses, pre-medications, pre-infusion investigation, optimum doses and side effects among the participants will reflect negatively on patient care and will need to be addressed.
- Restrictions and limitations in using IVIG in Sudan were found to be mainly: cost, availability and the insufficiency of knowledge and practice.
- The obtained results would serve in developing additional research.

Recommendations:

To rationalize IVIG use and improve patient care the following measures are recommended:

- Targeting practitioners with educational programmes on the clinical utility of IVIG to improve their knowledge and practice on the products. This can be a requirement of undergraduate and postgraduate curricula as well as continuous professional development and in-service training programmes.
- The approval of relevant guidelines and protocols that will govern IVIG utility and dispensing.
- The creation of a national database that will classify the patient need for IVIG by priority of clinical indications.
- Auditing the above recommendations against international standards of indications and use of IVIG.



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