

U.S. Hemophilia Physician Prescribing Practices: Then and Now

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INTRODUCTION

U.S. hemophilia treatment costs may approach \$500,000/person/year, most of which is attributable to the cost of factor concentrate. Given these high costs, in the era of new and more expensive therapies, examining variances in physician treatment practices for persons with hemophilia is vital. Scant published multicenter data documenting prescribing practices among U.S. physicians are available. In the current healthcare environment of personalized medicine using individualized therapeutic approaches, a study detailing prescribing differences over time may inform current use of expensive hemophilia treatment products in the United States.

OBJECTIVE

To understand trends in US physician prescribing practices for hemophilia.

METHODS

Data from self-administered paper surveys using convenience samples of clinicians attending major national hematology conventions in 1999 and 2015 were analyzed. In 1999, 40 physicians completed surveys, and 53 physicians completed them in 2015. Comparisons were made between the two groups. Surveys were de-identified, although respondents from 2015 could elect to provide contact information to receive the results. Both groups treated pediatric and adult patients but detailed demographics are not available for the 1999 respondents. Prescribing practices were for both Hemophilia A (HA) and Hemophilia B (HB).

Figure 1: Demographics of 2015 Participants

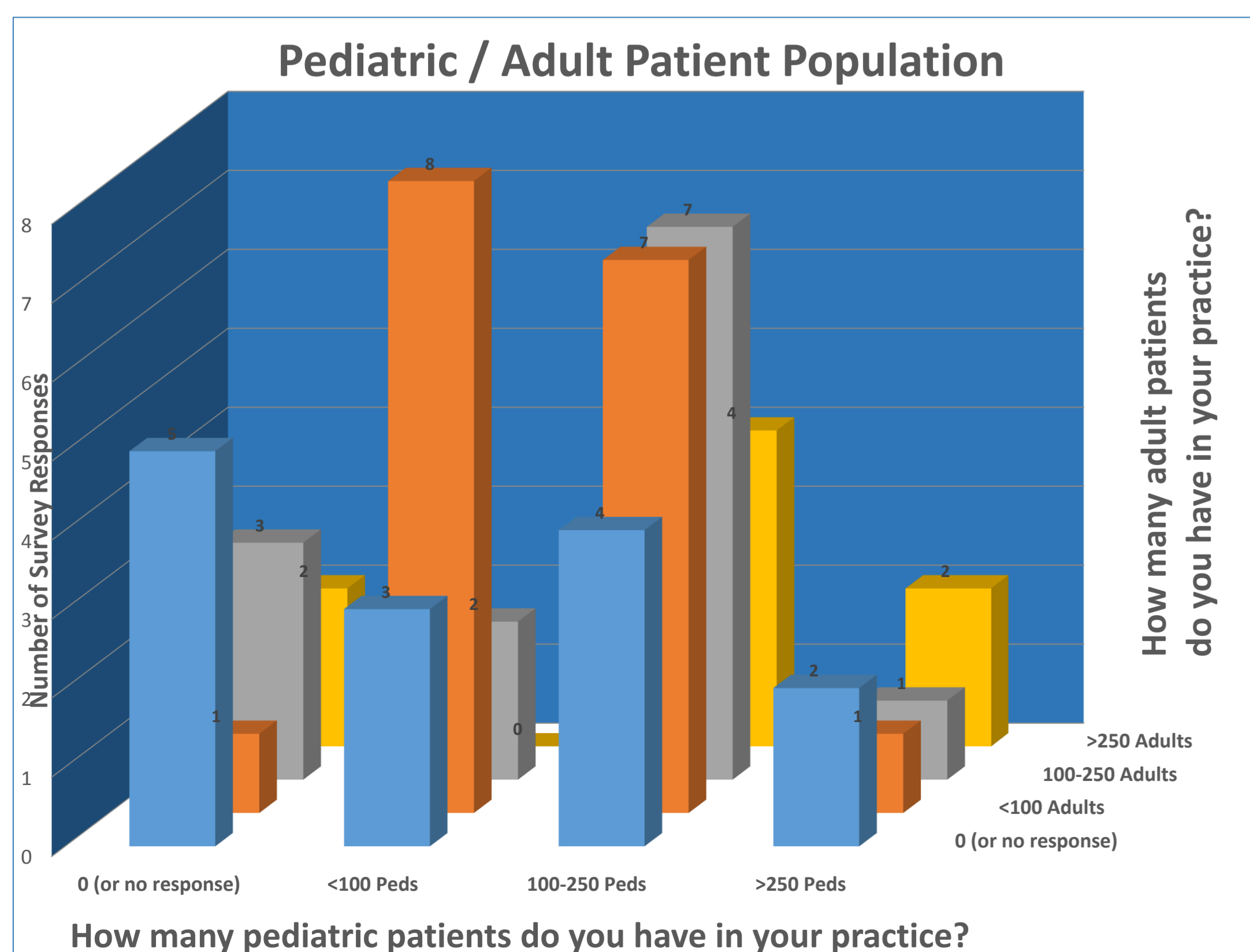


Table 2: Bleed Type with factor amounts prescribed

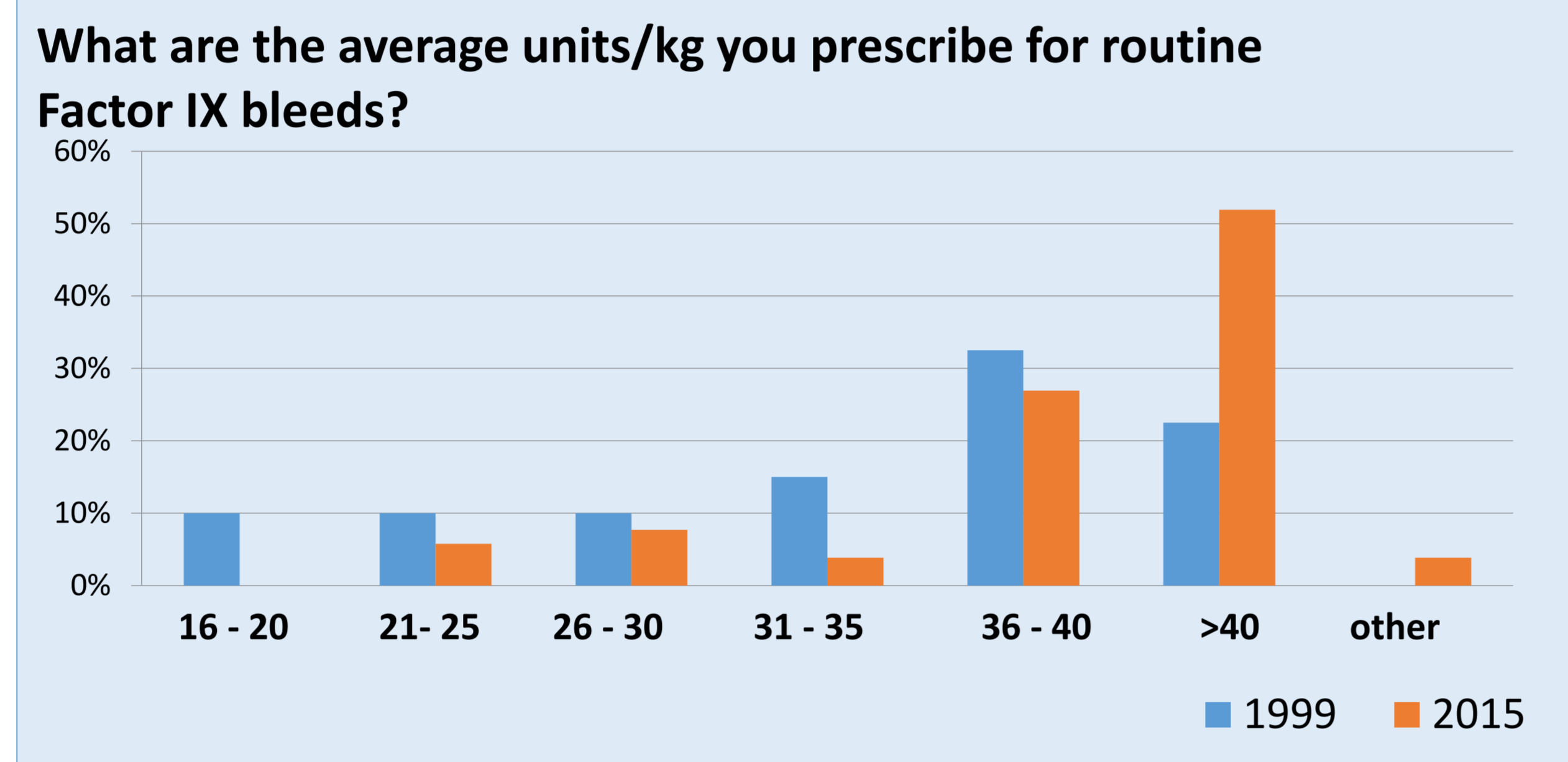
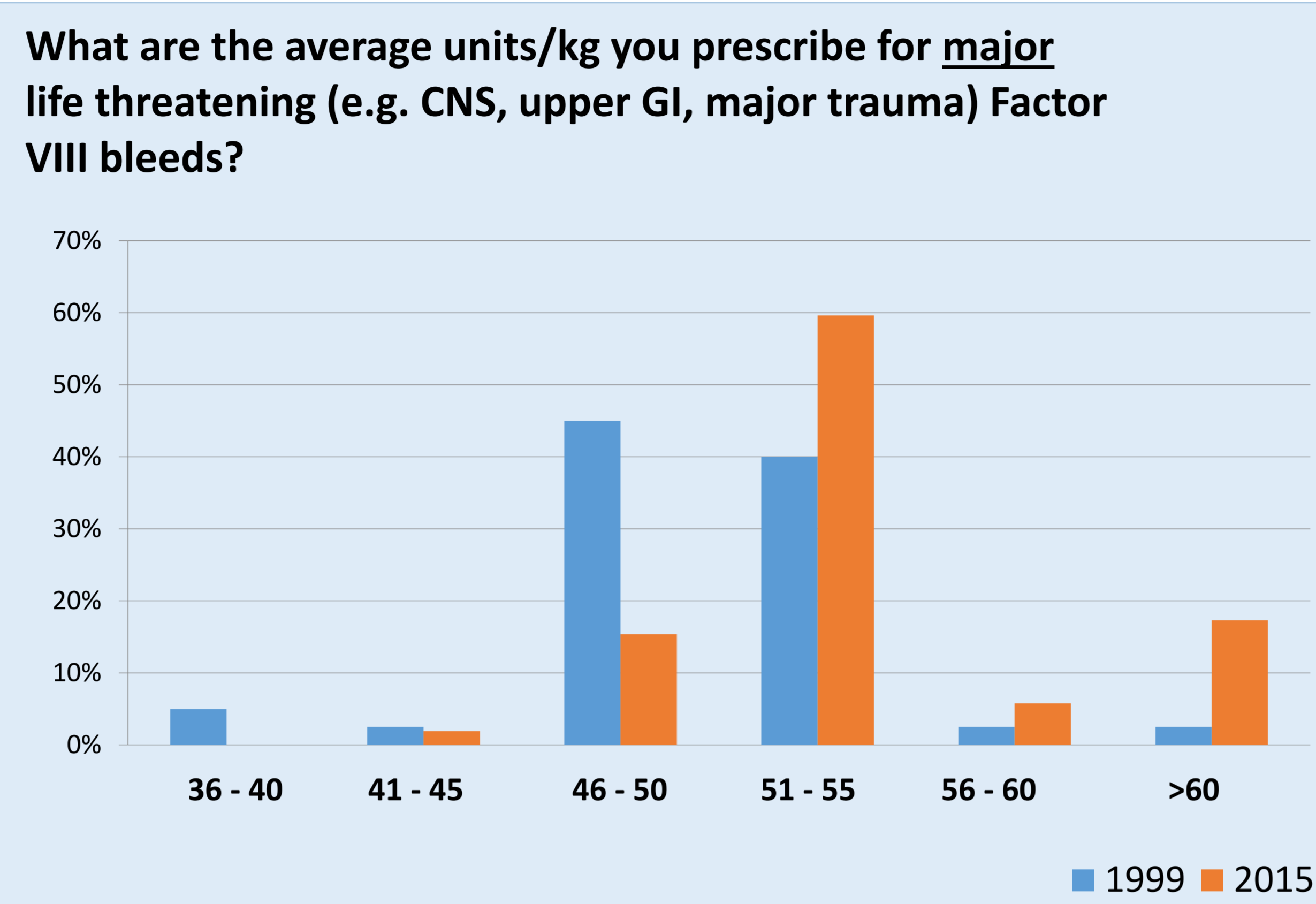


Table 3: ITI in both adults and pediatrics

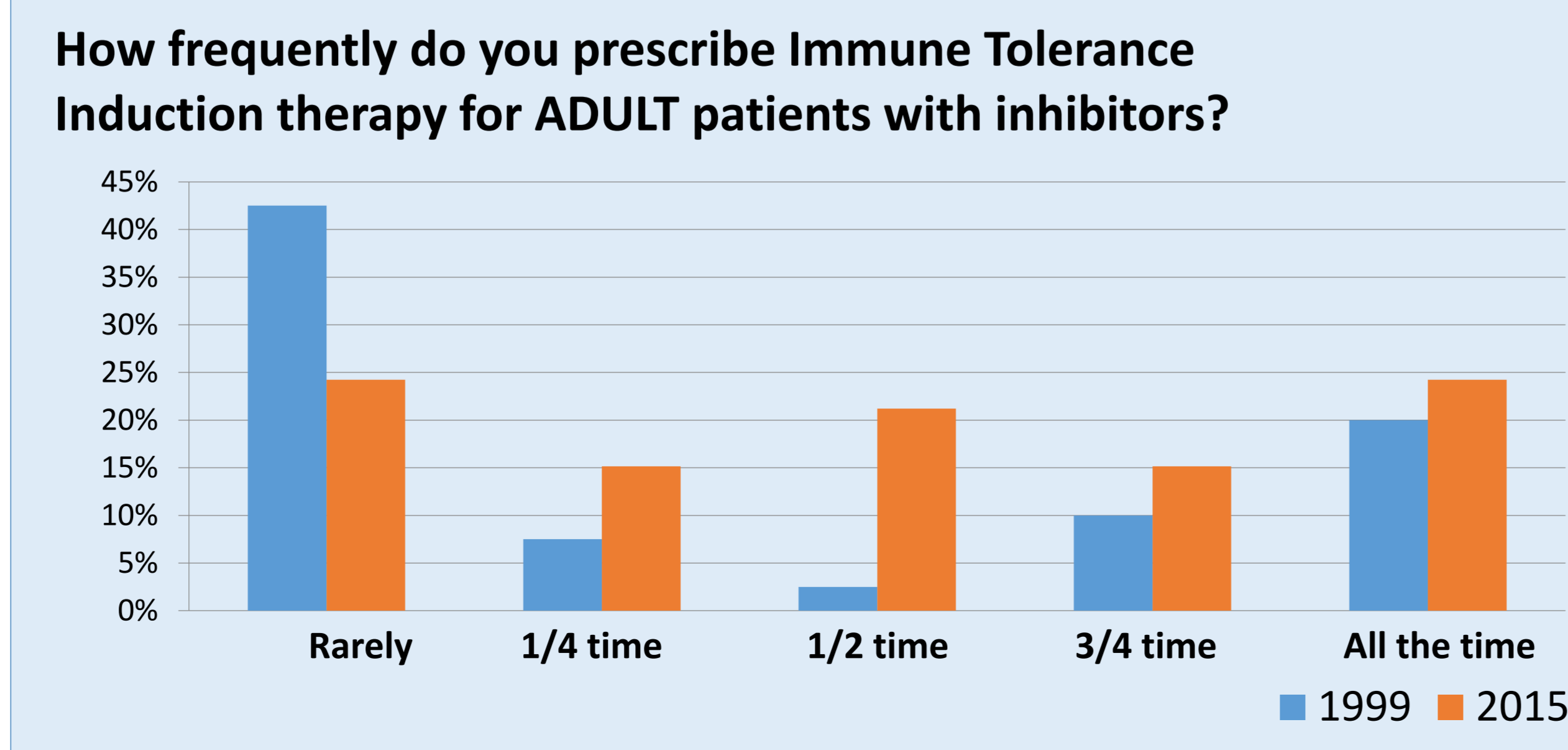
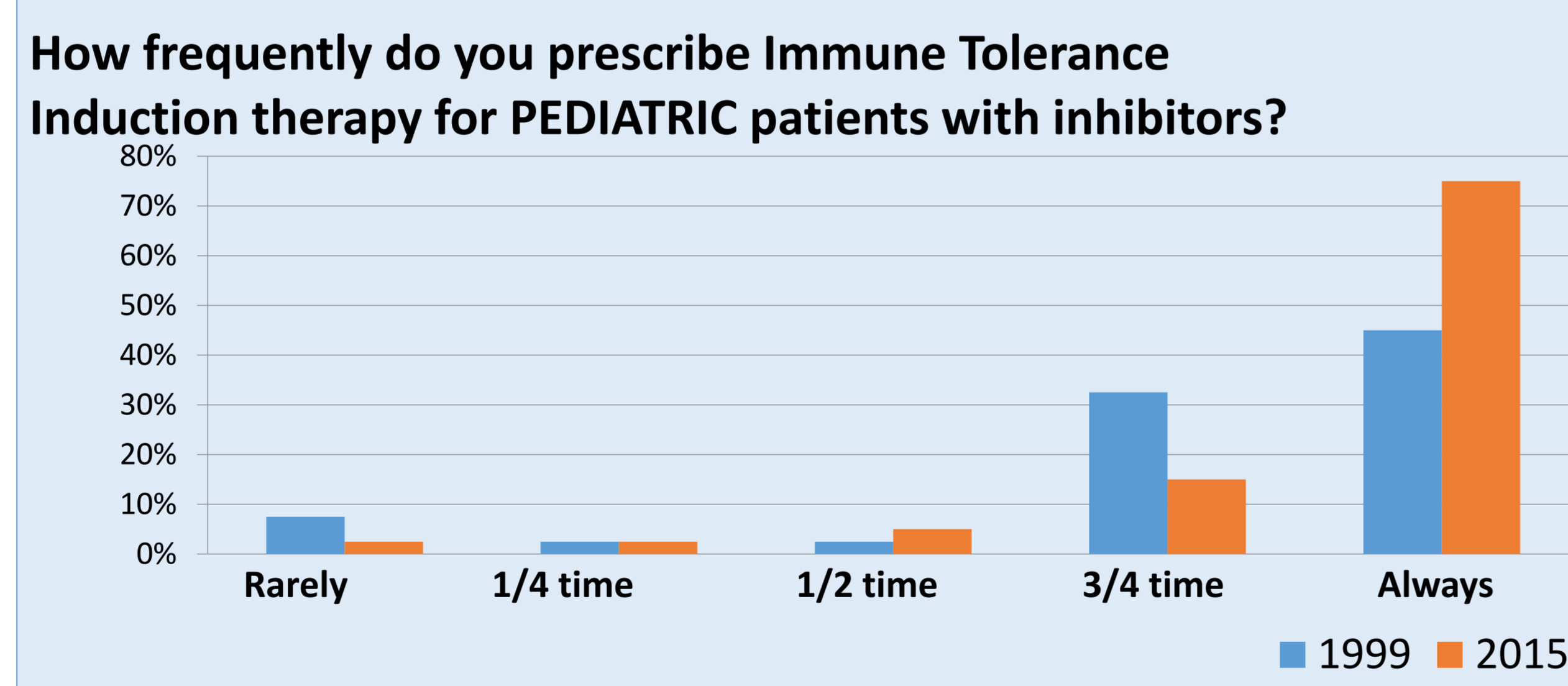


Table 4: How frequently do you recommend primary prophylaxis for patients under age four?

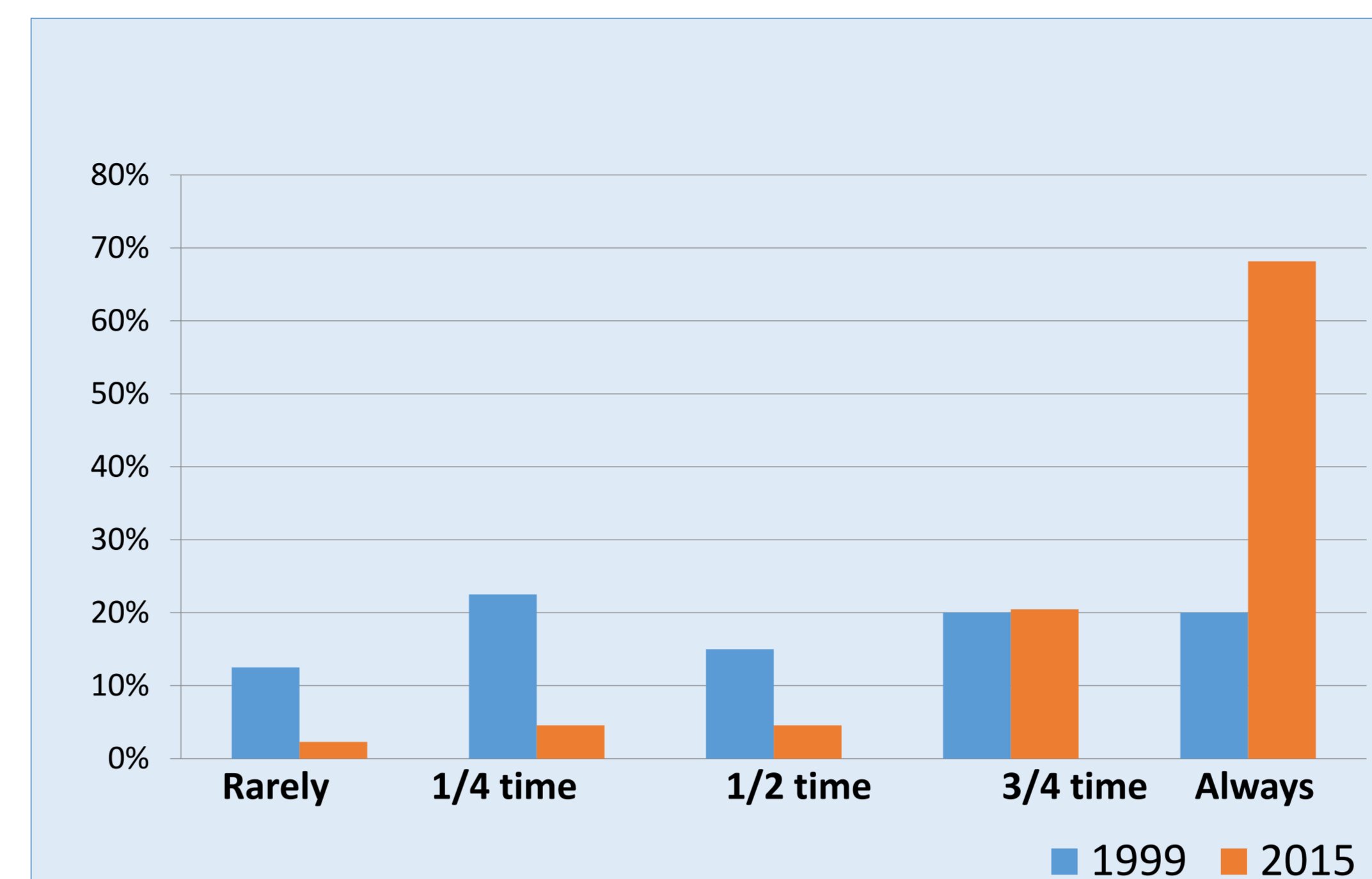


Table 5: How frequently do you prescribe secondary prophylaxis (long-term >8 weeks)?

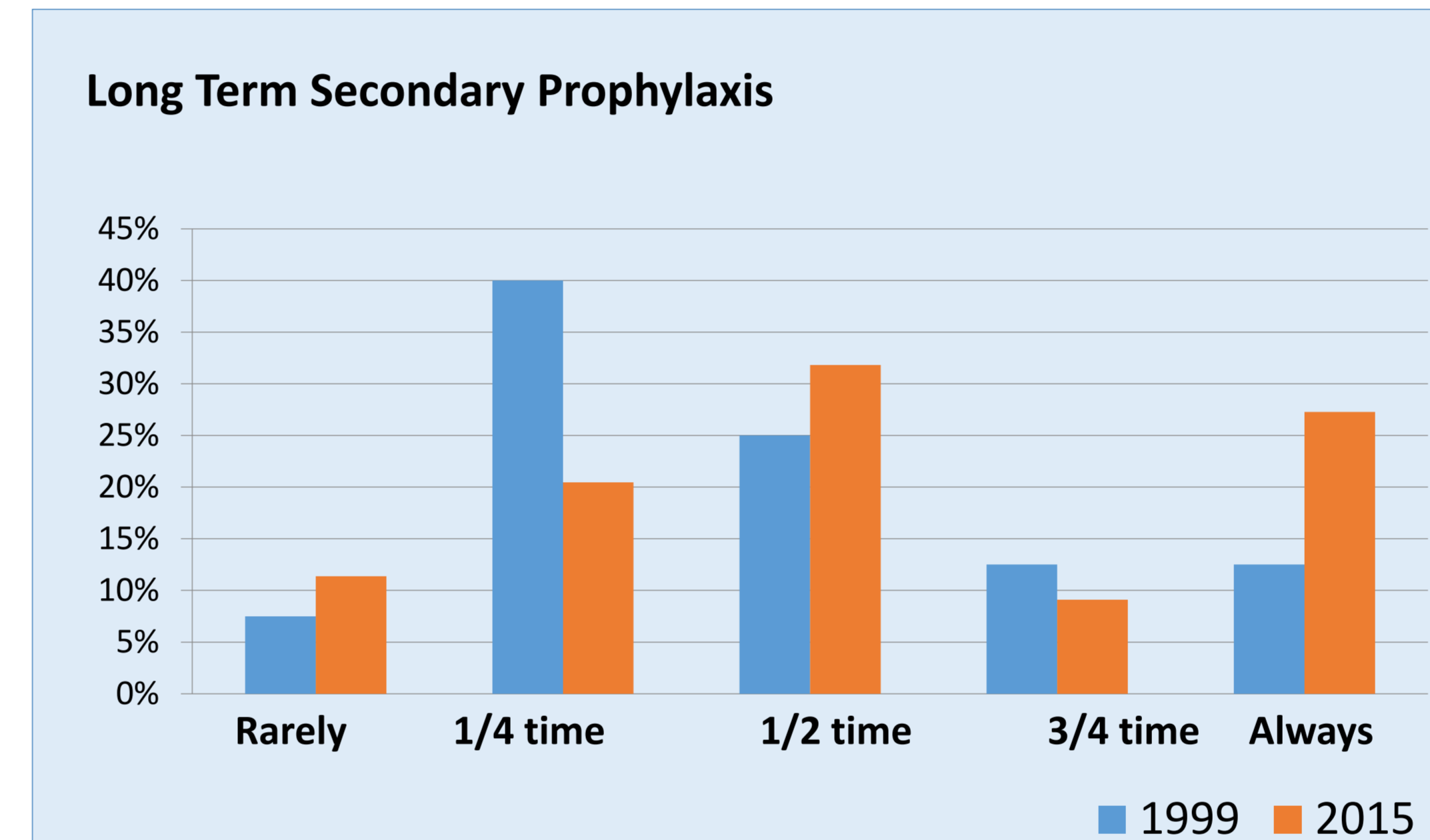


Table 6: 2015 - How many days on average do you treat a patient following Total Joint Replacement?

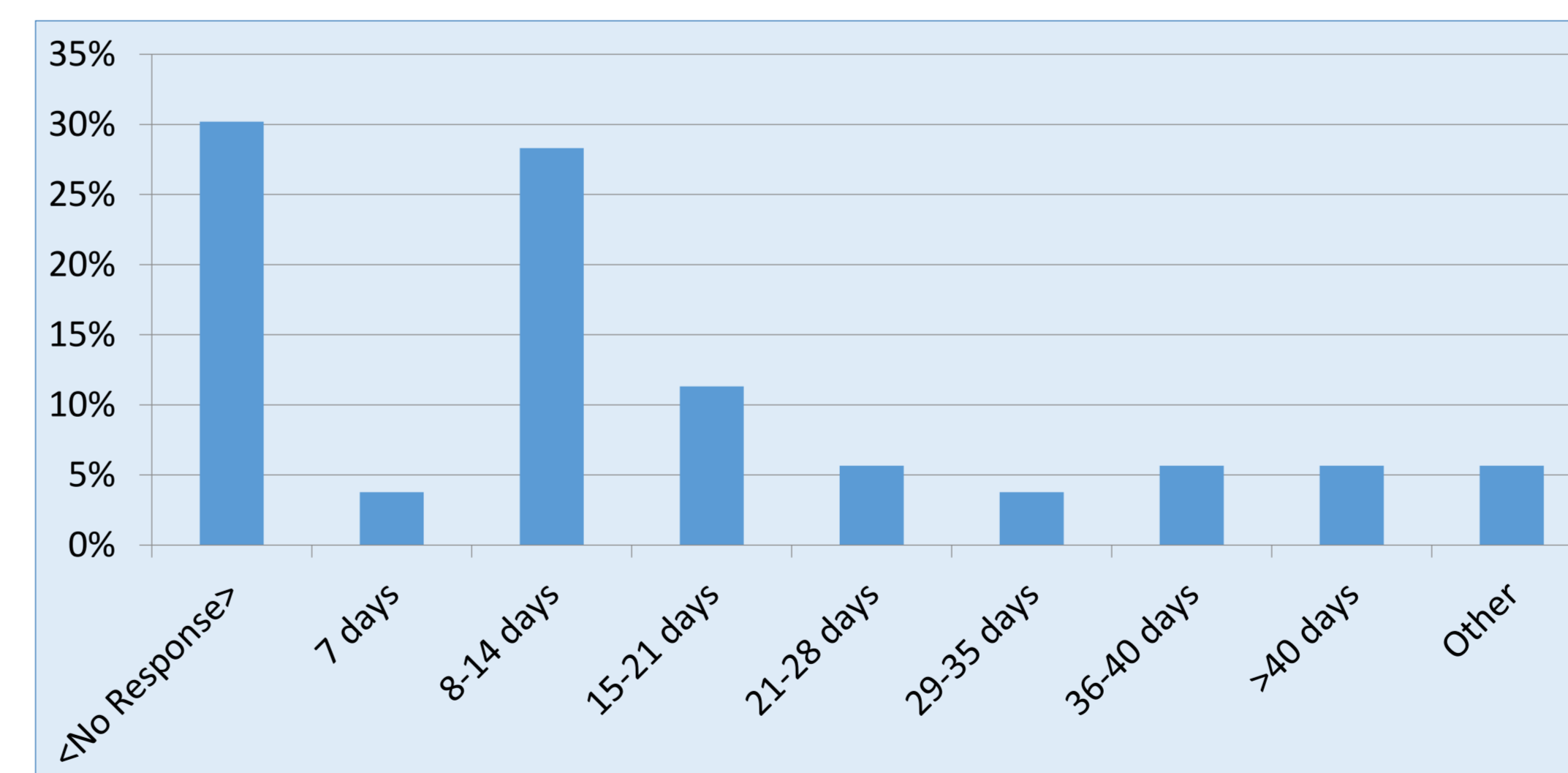
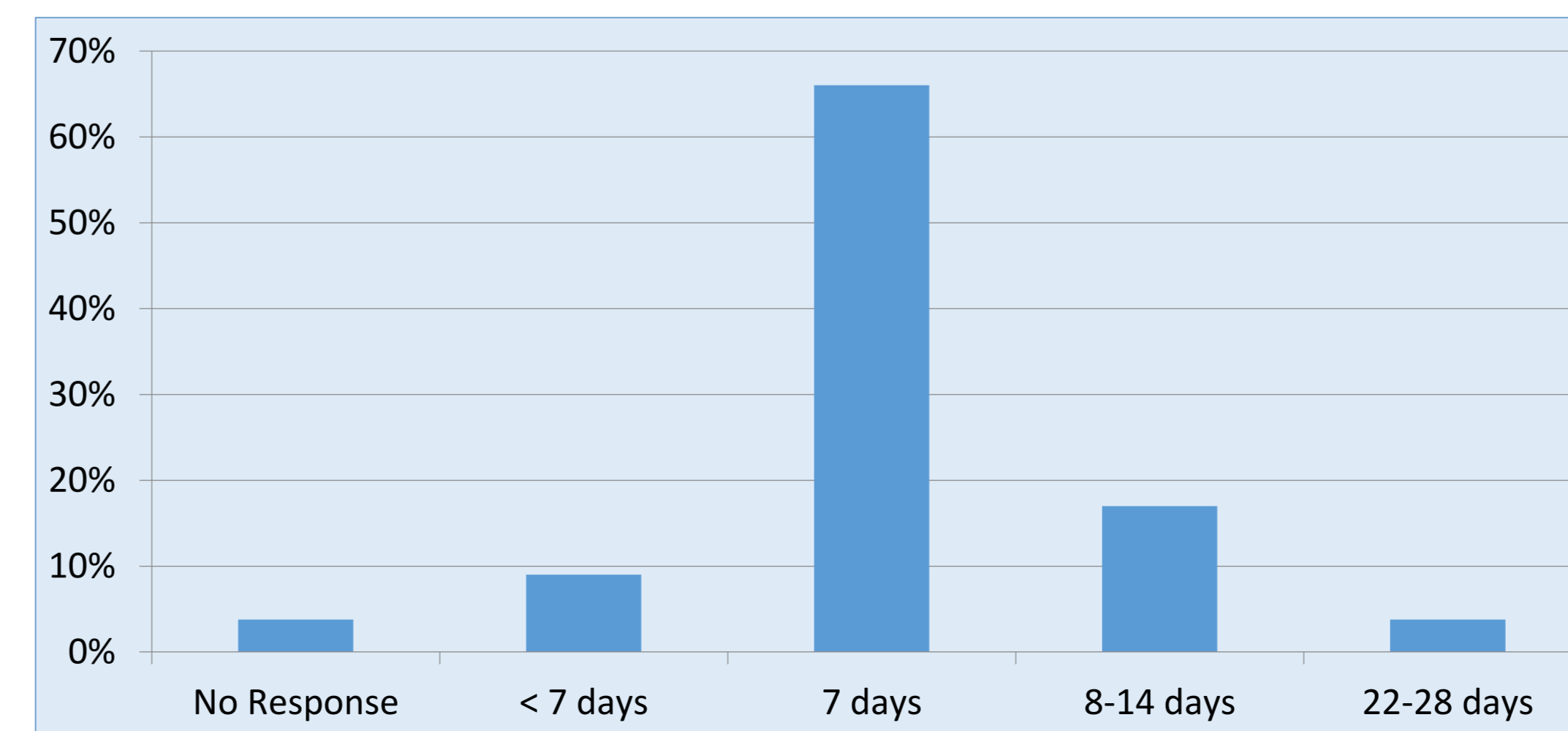


Table 7: 2015 - How many days on average do you treat a patient following port placement?



RESULTS

Demographic data for respondents were not collected for the 1999 survey. Number of respondents in 1999 = 40 and in 2015 N = 53. Table 1 (2015 data only) demonstrates 6 respondents provided pediatric only care, 2 provided adult only care and 46 provided care to both. Data also includes relative size of patient population served. In comparing treatment regimens between the different time periods, Table 2 shows that dosing for HA and HB increased between 1999 and 2015. In 1999, in HB, only 21% prescribed >40 units/kg compared to more than 50% in the 2015 respondents. Table 3 shows that ITI was prescribed 70% of the time in pediatrics compared to 2015 when more than 85% prescribed pediatric ITI for 75 - 100% of the time. The same trend holds true for pediatric primary prophylaxis for patients <4 years of age. In 1999, about 40% prescribe prophylaxis 50 - 75% which is substantially lower than in 2015 when over 90% prescribed primary prophylaxis from 75 -100% of the time. Secondary prophylaxis is prescribed from 1/2 - all time by 50% in 1999 and 57% in 2015. Data on prescribing practices for surgical procedures was not collected in 1999 but in 2015, treatment in HA patients ranged from 8 - >40 days post-operatively. For port placements in patients with HA, greater than 2/3 of respondents prescribed 7 days of treatment and 9% prescribed more than 21 days.

CONCLUSIONS

During the past 15 years, the amount of factor prescribed for major and minor bleeding episodes has increased both Hemophilia A and B. Both surveys neglected to define "routine" bleeding but defined "major" as CNS, Upper GI, and major trauma. ITI for both pediatric and adult patients was prescribed much more frequently in 2015 than in 1999. A similar trend of increased prophylaxis use in 2015 was observed, probably attributable to the publication of data from the Joint Outcome Study (Manco-Johnson, et al, 2007 *N Engl J Med.* 2007 Aug 9;357(6):535-44). Wide variances in duration of treatment following surgical procedures indicate the need for outcome measures that facilitate standardization of prescribing practices.

ACKNOWLEDGEMENTS

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