

High treatment satisfaction with Hizentra, a 20% subcutaneous immunoglobulin (SCIG): real-world survey data

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Introduction

- Primary immunodeficiency (PI) diseases are defects of the immune system comprised of over 300 diverse groups of rare illnesses [1]
- Subcutaneous immunoglobulin (SCIG) and intravenous immunoglobulin (IVIg) therapy offer two treatment modalities for patients with PI where the condition is associated with low or dysfunctional immunoglobulin G (IgG) levels
 - SCIG may offer benefits over IVIg, such as a consistent steady-state IgG pharmacokinetics profile, reduced systemic side effects, and the convenience of self-administration in a home setting [1, 2]
- Hizentra is the first-approved, ready to use, 20% liquid preparation for SCIG infusion and has been indicated for PI since 2010 [3]
 - While studies have found improvement in treatment satisfaction following a switch from IVIg to SCIG, there have been no major comparisons across various SCIG products and/or characterization of treatment satisfaction in IgG treatment [4]
 - As an exception, a small study (n=32) assessed tolerability and efficacy in patients with PI, during transition from a 16% SCIG product to Hizentra [5]
 - Treatment satisfaction was monitored during this study and found no significant differences between the two products, but observed that Hizentra was more favorable to patients in terms of side effects [5]

Aim

- Utilizing data from a large survey of the membership of the Immune Deficiency Foundation (IDF), we aimed to evaluate treatment satisfaction across a large group of patients with PI currently receiving SCIG, characterizing specifically those on Hizentra

Methods

- An online survey was completed by patients, and caregivers of pediatric patients, with PI between March 10–31, 2017 identified from a national distributed IDF database. The survey represented a non-probability sample, i.e. may not be completely representative of the IDF membership and in turn of the entire PI population in the US
- The survey included questions on diagnosis, treatment, and general experience of those living with PI and receiving treatment with IgG therapy
- As a key part of the survey, respondents were asked to complete the Treatment Satisfaction Questionnaire for Medication (TSQM) (Quintiles, Inc., Durham, NC, USA)

The TSQM is a validated, 14-item instrument measuring patients' satisfaction with their medication divided into four domains: *effectiveness*, *side effects*, *convenience*, and *global satisfaction* [6]

- Questions are graded on a five- or seven-point scale and these scores transformed into a score of 0 to 100, with higher scores signifying higher satisfaction for that domain
- Desirable thresholds for treatment satisfaction were defined as the two best scores for side effects (1–5 scale); and three best for all other domains (1–7 scale)
- These were translated to 67, 75, 67, and 67 for *effectiveness*, *side effects*, *convenience*, and *global satisfaction*, respectively
- TSQM responses were approximately normally distributed; therefore, an unpaired t-test was used to compare the scores between Hizentra and 'other SCIG products' as two groups

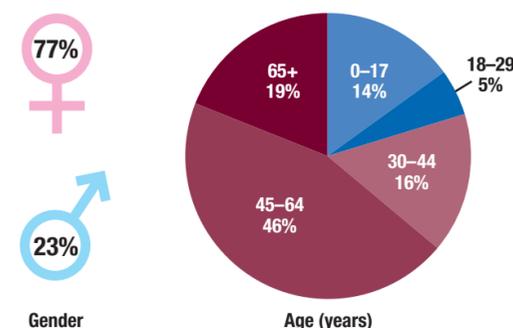
Results

Respondent demographics

- Of 1,037 respondents, 744 were receiving IgG; 247 reported currently receiving Hizentra and 141 listed another SCIG product (356 reported receiving IVIg)[†] (Figure 1)

Figure 1: Demographics of patients with PI receiving Hizentra (n=247).

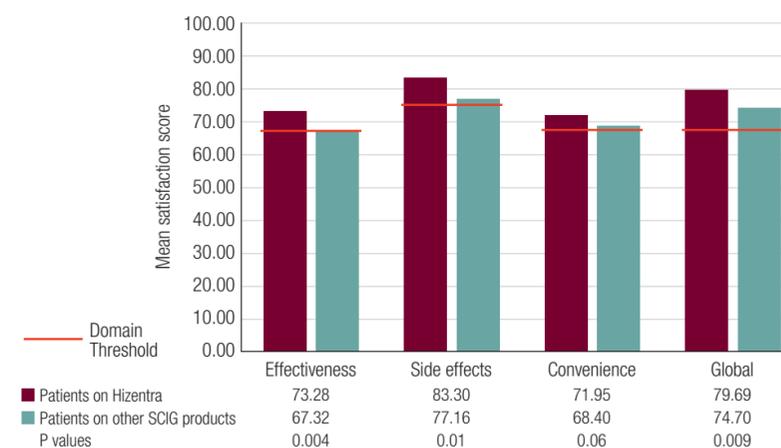
PI: Primary Immunodeficiency



Treatment Satisfaction

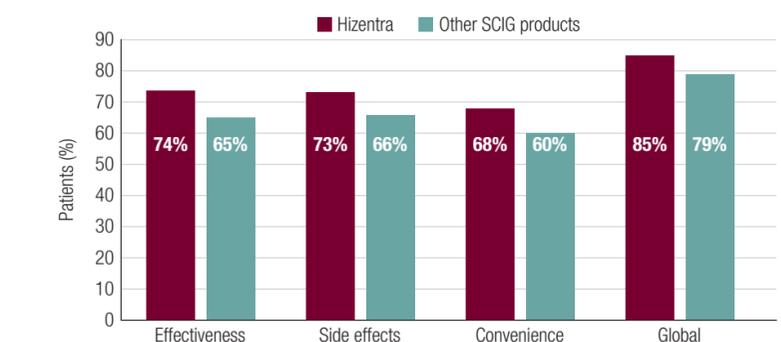
- Mean satisfaction scores for respondents receiving SCIG were above target thresholds for all four domains demonstrating a high level of satisfaction with SCIG overall (Figure 2)
 - However, the mean scores for Hizentra were significantly higher for *effectiveness* (p=0.004), *side effects* (p=0.01) and *global satisfaction* (p=0.009) when compared with other SCIG products
- Respondents on Hizentra (n=247) also scored more highly in all domains compared with respondents on IVIg products (n=356)
- The mean total TSQM score for respondents on Hizentra was 76 (standard deviation (SD) = 19), whereas this was 71 (SD = 19) for those on other SCIG products and 74 (SD = 15) for those on IVIg product

Figure 2: Mean satisfaction scores from the treatment satisfaction questionnaire for medication (TSQM) Patients currently on Hizentra, (n=247) compared with patients who reported a different SCIG product (n=141)



Other SCIG products could include: Gammagard Liquid Subcutaneous, Gammaked Subcutaneous, Gamunex-C Subcutaneous, HyQvia, or Cuvitru. The red lines represent the various thresholds for each domain; 67 for *effectiveness*, *convenience* and *global satisfaction* and 75 for *side effects*.

Figure 3: Percentage of respondents on Hizentra or 'other SCIG product' scoring on or above the domain thresholds



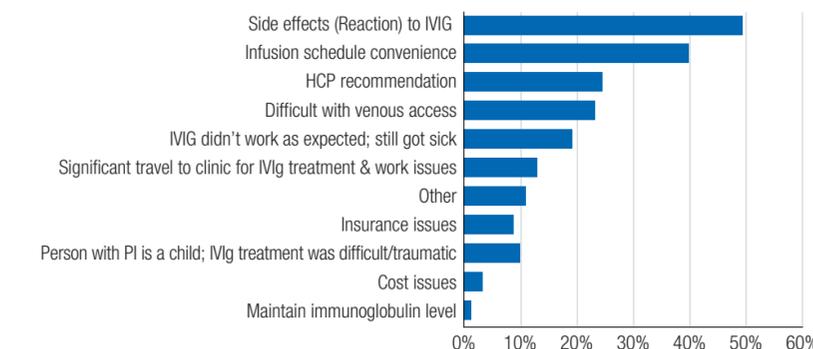
- The proportion of respondents scoring above the domain thresholds was over two thirds for each of the four domains (Figure 3)
 - Global satisfaction* had most patients meeting the threshold, with 85% of patients scoring at the threshold level or above

[†]Due to the nature of patient-reported survey data, a minority of respondents provided incongruent answers with respect to their IgG product and IgG route of administration; this data is based on IgG product selection

Switching to Hizentra

- Of the 247 respondents on Hizentra, 57% had switched from IVIg and 31% were IgG-naïve (10% did not answer this question)
- The most common reasons for switching in those previously on IVIg (n=145) were because of side effects (50%) and the additional convenience of the SCIG infusion schedule (40%) (Figure 4)

Figure 4: Reasons reported by respondents for switching from intravenous immunoglobulin (IVIg) to Hizentra (n=145)



Conclusions

- Respondents on SCIG therapy demonstrated a high level of treatment satisfaction overall
- TSQM scores for respondents on Hizentra were significantly higher than those on other SCIG products for *effectiveness*, *side effects*, and *global satisfaction*
- Irrespective of age, TSQM scores for respondents on Hizentra were above the desired threshold for all TSQM domains
- The majority of respondents on Hizentra (68–85%) reported above desired thresholds for all TSQM domains

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