Patient Perspectives From the Phase 3 IRAKLIA Study of Isatuximab (Isa) Subcutaneous (SC) via On-Body Injector (OBI) vs Isa Intravenous (IV) in Relapsed/Refractory Multiple Myeloma (RRMM)

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INTRODUCTION

Figure 1. OBI applied to the patient's abdomen[a]

[a]CAUTION: Investigational device. Limited to investigational use. Device pictured on a model.

- Isatuximab (Isa) is an anti-CD38 monoclonal antibody approved for intravenous (IV) use in newly diagnosed multiple myeloma (MM) and relapsed/refractory MM (RRMM).[1-4]
- As the use of anti-CD38 monoclonal antibodies continues to expand, there is an opportunity to improve practice efficiency and the overall patient and clinic experience.[5-8]
- The on-body injector (OBI; previously referred to as on-body delivery system [OBDS]; **Figure 1**) is an innovative wearable injector for subcutaneous (SC) delivery of Isa that offers advantages over IV infusions and manual injections, including hands-free administration, individualized flow rate, and a small, hidden, retractable needle.[5-7]
- In the global Phase 3 IRAKLIA study (NCT05405166), Isa SC delivered via an OBI in combination with pomalidomide-dexamethasone (Pd) was shown to be noninferior to Isa IV + Pd for efficacy (overall response rate) and pharmacokinetics (steady-state trough level at C6D1 predose) in patients with RRMM.[8]
- In IRAKLIA, patient satisfaction with the injection method at Cycle (C) 5 Day (D) 15 was significantly higher for Isa SC OBI compared with Isa IV (ITT population: 70.0% vs 53.4%); this included over 20% more participants responding "very satisfied" in the Isa SC OBI arm (35.4%) compared with the Isa IV arm (13.8%).
  - Among those who completed the questionnaire, satisfaction was 96.8% for Isa SC OBI vs 70.8% for Isa IV.[8]
- Patient expectation of injection method at baseline and patient experience/ satisfaction with injection method were assessed as secondary end points using the questionnaires.[8]
- Here, we build on previously reported results and present a detailed analysis of patient experience and satisfaction with the 2 Isa delivery methods in IRAKLIA.

METHODS

- IRAKLIA, the first MM Phase 3 study to incorporate the use of an innovative OBI, is a randomized, multicenter, open-label study conducted in adult patients with RRMM who have received at least 1 prior line of therapy including lenalidomide and a proteasome inhibitor.[8]
- Patients aged ≥18 years (N=531) were randomized 1:1 to Isa SC OBI (1400 mg) or Isa IV (10 mg/kg) weekly in C1, then every 2 weeks with Pd.[8]
- Patient expectations and experience were assessed using questionnaires developed by Sanofi. Qualitative patient interviews and cognitive debriefing informed the development of these questionnaires. These questionnaires included:
  - Patient Expectation Questionnaire at baseline (PEQ-BL)
  - Patient Experience and Satisfaction Questionnaire Follow-Up (PESQ-FU) was completed at C1 (D8/15/22), C2 (D1/15), C3-C4 (D1), and C5 onward (D15). PESQ at C5D15 was 1 of the 4 key secondary end points
  - PESQ at end of treatment (PESQ-EOT) was completed at the EOT
  - Patient's Assessment of Treatment (PAT) questionnaires were completed at EOT.
- The EORTC Core Quality of Life questionnaire (EORTC-QLQ-C30) was administered at C1D1, C2D1 and C3 onward (D15) to assess health-related quality of life.
- Questionnaire responses from enrolled/randomized patients, who were not exposed to the alternative injection method, were analyzed and summarized descriptively for both injection methods.
- A post hoc stratified Cochran-Mantel-Haenszel test analysis was conducted at C5D15 comparing Isa SC OBI and Isa IV, based on PESQ questionnaire responses.
- A subgroup analysis was also performed and analyzed PESQ scores between injection methods in participants who received both treatments across age subgroups (75 years, ≥75 years) at C1D8.

RESULTS

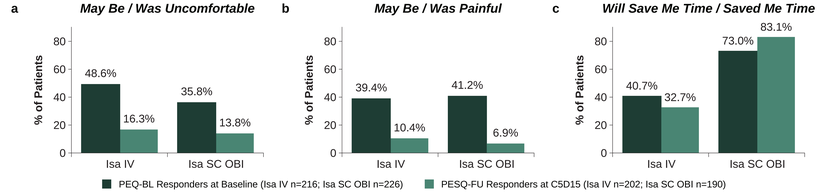
Questionnaire Completion (PEQ-BL and PESQ-FU)

- Compliance was high for both questionnaires; similar proportions of patients in both arms completed the PEQ-BL (≥80%) and PESQ-FU at each cycle through C17 study (≥75%).
- At baseline, most patients in both arms agreed or strongly agreed with the expectation that isatuximab would be worth taking.

Patient expectations (PEQ-BL) vs patient experience (PESQ-FU) with injection method at C5D15

- The proportion of patients who agreed or strongly agreed that the injection method was uncomfortable or painful at C5D15 was numerically lower with Isa SC OBI vs Isa IV. Compared with expectations at baseline, a lower proportion of patients agreed or strongly agreed at C5D15 for both Isa SC OBI and Isa IV arms. (**Figures 2a and 2b**).
- At baseline, more patients in the Isa SC OBI arm (73%) expected the injection method to save time compared with the Isa IV arm (40.8%) (**Figure 2c**).
- Time-saving demonstrated the most marked difference between Isa SC OBI and Isa IV patients at baseline and on study (**Figure 2c**).
  - At C5D15, a greater proportion of Isa SC OBI patients reported that the injection method saved time compared with Isa IV patients (83.1% vs 32.7%, *P*<.001) (**Figure 2c**).

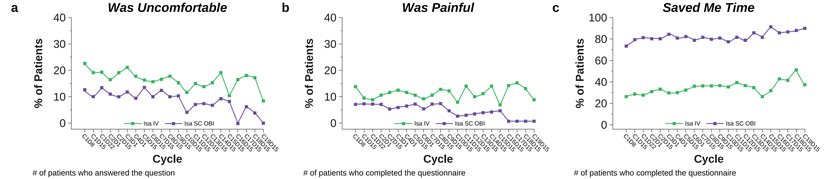
Figure 2. Comparison of Baseline Expectations (PEQ-BL Responders) and Injection Method Experience at C5D15 (PESQ-FU Responders) by Treatment Administration Arm: Proportion of Patients Who Agree or Strongly Agree



Discomfort, pain, and time-saving with injection method across treatment period (PESQ-FU)

- From C1D8 to C19D15, the proportion of patients agreeing or strongly agreeing that the injection method was uncomfortable (**Figure 3a**) and painful (**Figure 3b**) was generally lower in the Isa SC OBI arm compared with the Isa IV arm.
- From C1D8 to C19D15, the proportion of patients who responded that they agreed or strongly agreed that the injection method saved time was higher in the Isa SC OBI arm compared with the Isa IV arm (**Figure 3c**).

Figure 3. Percentage of PESQ-FU Responders Over Time Who Agreed or Strongly Agreed That the Injection Method:

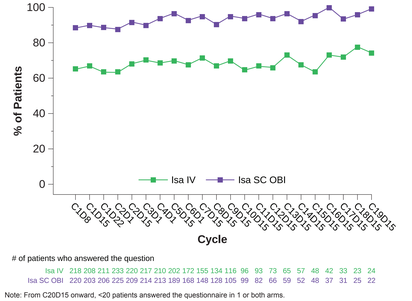


Note: From C20D15 onward, <20 patients answered the questionnaire in 1 or both arms.

PESQ-FU – Patient satisfaction with injection method

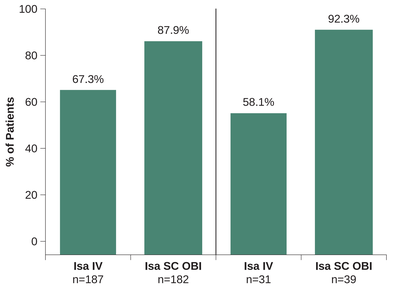
- A greater proportion of patients in the Isa SC OBI arm compared with the Isa IV arm were satisfied or very satisfied with the injection method across treatment period (**Figure 4**).
- Response distributions by age group were comparable with the overall results, with more patients in the Isa SC OBI arm reporting they were satisfied or very satisfied with the injection method, regardless of age (<75 or ≥75 years old) (**Figure 5**).

Figure 4. Percentage of PESQ-FU Responders Who Were Satisfied or Strongly Satisfied With the Injection Method Over Time



Note: From C20D15 onward, <20 patients answered the questionnaire in 1 or both arms.

Figure 5. Percentage of PESQ-FU Responders Who Were Satisfied or Strongly Satisfied With the Injection Method by Age Group at C1D8



PAT- Patient willingness to continue with injection method

- The percentage of patients who reported a willingness to continue with the drug they received during the trial was greater in the Isa SC OBI arm vs the Isa IV arm (57 [74.0%] patients vs 36 [51.4%] patients).

EORTC-QLQ-C30 – Global health status (GHS)/quality of life (QoL)

- At baseline, the mean EORTC-QLQ-C30 GHS/QoL score was 63.86 in the Isa SC OBI arm and 66.91 in the Isa IV arm; on this 0-100 scale, a higher score represents an improved QoL.
- Over time, the mean EORTC-QLQ-C30 GHS/ QoL score remained stable throughout treatment in both arms, indicating no worsening of QoL.

CONCLUSIONS

- In the global Phase 3 IRAKLIA study (NCT05405166), the proportion of patients who were satisfied with the injection method at C5D15 was higher with Isa SC OBI than with Isa IV (ITT population: 70.0% vs 53.4%).[8]
- Patients receiving Isa OBI in the IRAKLIA study reported numerically less discomfort and pain, and more time savings, from the injection method when compared with patients receiving Isa IV.
- Further supporting this finding, the Phase 2 IZALCO study demonstrated a strong patient preference for Isa SC OBI (74.5%) over SC manual administration (17%, with 8.5% indicating no preference) in patients treated with Isa SC in combination with carfilzomib and dexamethasone (Kd), after having been successively exposed to both delivery methods for 3 cycles each.[9,10]
- These data show Isa SC OBI patients were more satisfied with their injection method and more willing to continue therapy than Isa IV patients, supporting the feasibility and benefits of using the OBI for SC isatuximab administration.

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ABBREVIATIONS:
BL, baseline; C, cycle; D, day; EORTC-QLQ-C30, EORTC Quality of Life questionnaire; EOT, end of treatment; F/U, follow-up; GHS, global health status; Isa, isatuximab; ITT, intent-to-treat; IV, intravenous; MM, multiple myeloma; OBI, on-body injector; PAT, Patient's Assessment of Treatment; Pd, pomalidomide-dexamethasone; PEQ, patient expectations questionnaire; PESQ, patient experience and satisfaction questionnaire; QoL, quality of life; RRMM, relapsed/refractory MM.

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QUESTIONS:
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