Patient Acceptability of INP104 Aligns With the Unmet Needs Identified in the I-BEAM Survey

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Introduction

- Migraine is an undertreated disease despite the availability of acute therapies[1]
- Patients have reported dissatisfaction with several aspects of therapy including speed of onset of pain relief, achieving pain freedom, consistency of effect, headache recurrence, and side effects[2,3]
- INP104 is a novel, investigational drug-device combination product that targets delivery of dihydroergotamine (DHE) mesylate to the upper nasal cavity using Precision Olfactory Delivery (POD®) technology, which results in greater, more consistent drug absorption[4]
- The safety, tolerability, and exploratory efficacy of INP104 were assessed in the Phase 3 STOP 301 study over 24 or 52 weeks[5]
  - No new safety signals were identified
  - INP104 led to patient-reported pain freedom in 38.0% of patients, most bothersome symptom freedom in 52.1%, and pain relief in 66.3% at 2 hours for the first INP104-treated migraine attack (MA)
- As part of the STOP 301 trial, the acceptability of INP104 was evaluated through a patient acceptability questionnaire (PAQ). The results of the questionnaire were interpreted in the context of unmet needs evaluated through a patient survey and interview in the I-BEAM study[6,7]
  - Both I-BEAM (2019) and STOP 301 (2018-2020) were performed prior to the launch of gepants and ditans

Objective

- To report unmet needs in the treatment of migraine from the perspective of patients with migraine as assessed by the **I-BEAM** study
- To report the product acceptability of INP104 over 24 weeks from the pivotal Phase 3 **STOP 301** clinical trial

Methods

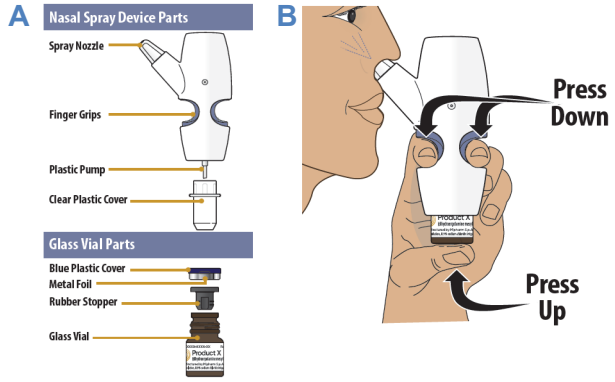
I-BEAM: A Patient Experience Study

- The I-BEAM study consisted of surveys and interviews with participants to better understand patient experiences, including satisfaction levels with current treatments and unmet needs
- The target population was 98% female, aged 20-50, experiencing 1-12 MAs per month who "always" or "sometimes" took prescription medication for MAs within the past 6 months
- Recruitment was conducted through social media and referrals (N=50)
- Quantitative Survey (15 minutes; n=50)
  - Obtained diagnosis and treatment information, including past and current treatments, and level of satisfaction
- Qualitative Interview (1 hour; n=49)
  - In-person individual-depth interview (n=24) **or** web-enabled telephone-depth interview (n=25)
  - Obtained more detailed insight into perspectives surrounding diagnosis and treatment

STOP 301: A Phase 3 Clinical Trial of INP104

- STOP 301 was a Phase 3, open-label, single-group study assessing the safety, tolerability, exploratory efficacy, and product acceptability of INP104 (NCT03557333)
- The study consisted of a 4-week screening period, a 24-week treatment period for all patients, a treatment extension to 52 weeks for a subset of patients, and a 2-week post-treatment follow-up for all patients
- Patients were male or female adults (18-65 years) in good health with a diagnosis of frequent migraine, defined as experiencing a minimum of 2 MAs, with or without aura, each month not qualifying as chronic migraine during the previous 6 months per the *International Classification of Headache Disorders* (version 3 beta)
- During the screening period, patients were on a current "best usual care" treatment. After the screening period, all patients were provided with up to 3 doses/week of INP104 (**Figure 1**) to nasally self-administer (1.45 mg) with all self-recognized MAs over 24 weeks (or 52 weeks)
- A 9-question PAQ asking patients to assess the acceptability, usability, and effectiveness of INP104 was administered at the end of the study. Results from 6 of these questions will be reported here, as the remaining 3 questions relate to dysgeusia, discomfort in the nose, and determining if patients would ask their doctors for a prescription once available
  - Patients responded using a 5-item scale from "strongly agree" to "strongly disagree" (or not applicable)

Figure 1. (A) INP104 Product and (B) Actuation of INP104



Results

I-BEAM[6]

- Survey participants felt that speed of relief (22%), reliability of effect (22%), and duration of relief (18%) were lacking with their current treatments (**Figure 2**)
- The most frequently mentioned features of an ideal acute medication for migraine included:
  - Fast acting (15-30 minutes)
  - Long lasting (12-24 hours)
  - Providing complete or near-complete relief
  - Able to be taken any time during the migraine
  - Having few or no side effects, although many patients were willing to accept minor side effects as a trade-off for increased speed and efficacy
  - One medication to relieve all symptoms

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Figure 2. Participant Views on What Is Most Lacking in Current Medication

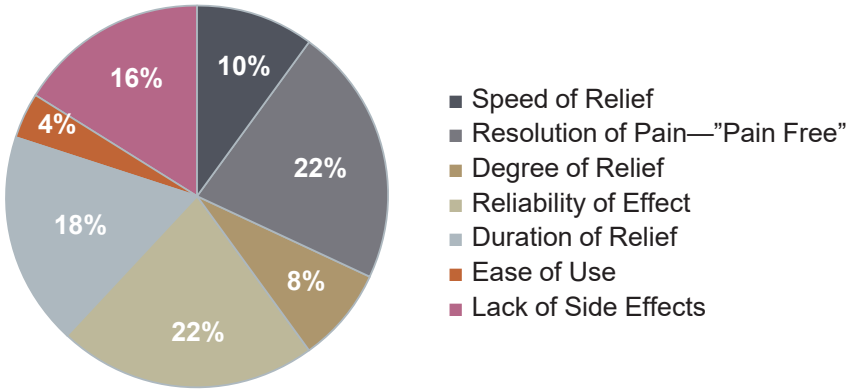
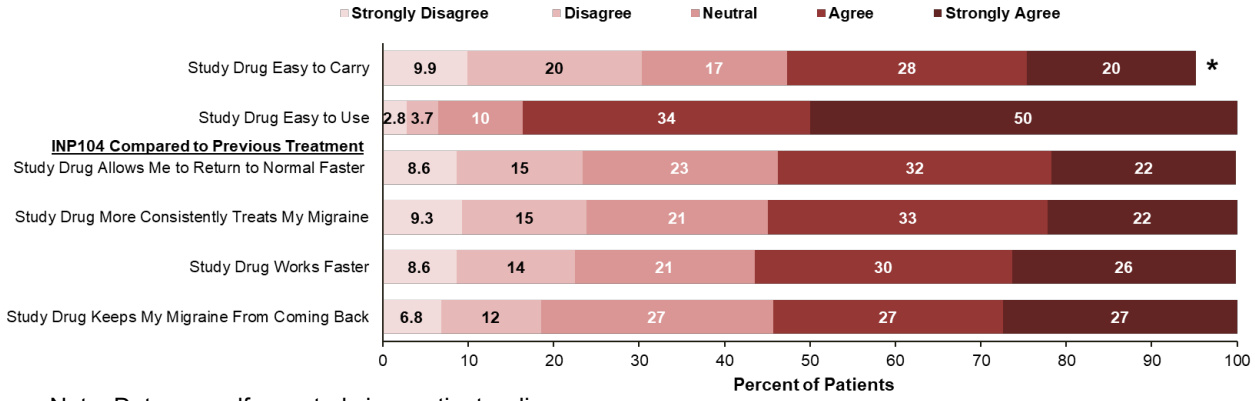


Figure 3. PAQ Responses (24-week FSS, N=354)



Note: Data are self-reported via a patient e-diary.
*Remaining 5% never used INP104 outside of the home.

STOP 301[7]

- 360 patients enrolled and 354 received at least 1 dose of INP104, comprising the full safety set (FSS), and took 5,099 doses of INP104 over the first 24 weeks
- 74% of patients completed 24 weeks of the study, with 73 patients entering the extension (and 90% of those completing 52 weeks)
- Most patients agreed/strongly agreed that INP104 was easy to use (84%)
- Compared to their previous best usual care:
  - 54% of patients agreed/strongly agreed that INP104 allowed them to return to normal activities faster
  - 56% and 55% of patients agreed/strongly agreed that INP104 worked faster and more consistently, respectively
  - 54% of patients agreed/strongly agreed that INP104 lasted longer (Figure 3)

Conclusion

- Most patients found INP104 easy to use and carry, and that INP104 provided faster-acting consistent benefit with longer-lasting relief, and allowed faster return to normal activities compared to their previous best usual care
- Results from the STOP 301 study,[5] including the PAQ, align with the unmet needs identified by the I-BEAM survey: (1) Fast acting; (2) long lasting; (3) providing complete or near-complete relief; (4) can be taken any time; (5) with few/no side effects
- Overall, the results from the PAQ suggest that upper nasal delivery of DHE mesylate may provide a well-tolerated alternative to acute treatments for migraine, while potentially providing the reliable efficacy of the long-established DHE molecule

Disclosures and Acknowledgments

All authors are full-time employees and stockholders of Impel NeuroPharma. This research was sponsored by Impel NeuroPharma. Editorial support was provided by IMPRINT Science and funded by Impel NeuroPharma. IMPEL, POD, and the IMPEL Logo are registered trademarks of Impel NeuroPharma.

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