**Aims**

Mepolizumab is an add-on maintenance treatment for patients with severe eosinophilic asthma (SEA) and has been shown to reduce blood eosinophil counts and asthma exacerbations and improve lung function and health-related quality of life, compared with placebo.1,2

The original approved formulation of mepolizumab was a lyophilized powder for reconstitution and administration in-clinic.3 A liquid drug formulation in a ready-to-use prefilled autoinjector (AI), enabling self-administration, was approved for use in 2019.4

This post hoc descriptive analysis compared the patient experience in patients who had previously received mepolizumab in-clinic and then switched to self-administration using an AI with those who first started mepolizumab with self-administration using an AI.

**Methods**

**Study design**

**Open-label Single-arm Multicenter Global5 Study**

Patients ≥12 years of age with SEA for ≥2 years:

- 84 had baseline mepolizumab use
- 75 had no previous mepolizumab use

Mepolizumab liquid (100 mg) for 12 weeks

**Endpoints**

Quantitative assessment (via questionnaires) of all participants at the end of the study (Week 12).

Questions broadly covered participants’ experience with the AI, including confidence in self-administering mepolizumab, anxiety, satisfaction, comfort, and confidence with self-administration.

Participants included USA, Germany, UK, Canada, France, and Australia. Baseline mepolizumab use (lyophilized powder formulation) was at least 12 weeks in-clinic by a healthcare practitioner prior to screening.4

*Countries include: USA, Germany, UK, Canada, Australia, Russia, and Sweden;†* patients were asked: ‘How anxious did you feel about administering mepolizumab using the AI at home?’. "Very anxious" included: Not at all anxious, A little anxious, Moderately anxious, Very anxious, Extremely anxious.

**Results**

**Baseline demographics and clinical characteristics**

<table>
<thead>
<tr>
<th>With baseline mepolizumab use</th>
<th>No previous mepolizumab use</th>
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<tbody>
<tr>
<td>Age</td>
<td>53 (15) years</td>
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<tr>
<td>Duration of previous year</td>
<td>10 (6) years</td>
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<tr>
<td>Exacerbation rate in previous year</td>
<td>1.3 (1.4)</td>
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**A positive treatment experience was reported by the majority of patients using the AI, regardless of baseline mepolizumab use**

- **Satisfaction**: Very satisfied</p><p>— Satisfied</p><p>— Neither satisfied nor dissatisfied</p><p>— Dissatisfied</p><p>— Very dissatisfied</p><p>**Easiness of use**: Extremely easy</p><p>— Very easy</p><p>— Easy</p><p>— Not at all easy</p><p>**Cartridge**: Very easy</p><p>— Easy</p><p>— Not at all easy</p><p>**Convenience**: Extremely easy</p><p>— Very easy</p><p>— Easy</p><p>— Not at all easy</p><p>**Recommended to other patients**: Yes</p><p>— No</p><p>**Proportion of patients (%)**

- With baseline mepolizumab use (n=82)
  - At home: 99% (81/82)
  - In-clinic: 99% (81/82)

- With no previous mepolizumab use (n=71)
  - At home: 99% (70/71)
  - In-clinic: 99% (70/71)

**Similar proportions of patients with and without baseline mepolizumab use report an extremely high self-administration use satisfaction**

Successful injection rates were 99% (81/82) and 99% (70/71) regardless of baseline mepolizumab use in the current study compared to 98% (76/77) and 100% (79/79) in prior studies.4

**Conclusions**

- The majority of patients in both groups reported similar levels of satisfaction, success, confidence, and convenience with self-administration of mepolizumab using an AI.
- The majority of patients responded to the survey, and were satisfied with self-administration of mepolizumab using an AI regardless of whether they had previously received mepolizumab in-clinic or not.
- Injection pain following self-administration of mepolizumab with an AI was similar in patients with or without prior mepolizumab use.
- These findings provide further evidence of the convenience and usability of self-administration of mepolizumab using an AI in patients with SEA.

**References**


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**Disclosures**

- CP, DB, and AJ are employees of GSK and hold stock/options.
- All authors have declared all their affiliations and relationships. 
- All authors have contributed to this study and the parent abstract but were not available to present the abstract at ATS. 
- EB contributed to this study and the parent abstract but was not available to present the abstract at ATS. 
- All authors have contributed to this study and the parent abstract but were not available to present the abstract at ATS. 
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