Mepolizumab, a humanised anti-IL-5 monoclonal antibody, is approved as an add-on treatment for patients with severe asthma with an eosinophilic phenotype.

Data from clinical trials have demonstrated that mepolizumab consistently reduces exacerbations and maintenance OCS use, and improves asthma control in patients with severe asthma. 1-3

To date, several studies have confirmed the effectiveness and safety of mepolizumab in patients with severe asthma in real-world clinical practice. 4-6

REALITI-A is an ongoing 24-month, international, prospective observational cohort study that further explores the real-world impact of mepolizumab on clinical outcomes in patients with severe asthma. Data from early treatment initiators have been previously reported; here we present data from the 12-month interim analysis of the full study population.

**Aims**

- **Real world**
  - Clinical diagnosis of asthma
  - >18 years of age
  - <5 years of follow-up

- **Observational**
  - Clinical diagnosis of asthma
  - >18 years of age
  - <5 years of follow-up

- **Prospective**
  - Clinical diagnosis of asthma
  - >18 years of age
  - <5 years of follow-up

- **International**
  - Clinical diagnosis of asthma
  - >18 years of age
  - <5 years of follow-up

- **Single arm**
  - Clinical diagnosis of asthma
  - >18 years of age
  - <5 years of follow-up

**Methods**

REALITI-A (GSK ID: 204716)

**Study design**

- **Study enrolment period**
  - Oct 2019

- **Study follow-up period**
  - 24 months

**Exclusions**

- **Rate of clinically significant exacerbations**
  - <5% (n=21)

**Dataset**

- **Mean (SD) age**: 34.0 (18.2) years
- **Female**: 63%
- **Mean (SD) asthma duration**: 12.7 (15.7) years
- **GBC. mean (SD) log BPC**: 0.15 (0.34) cell/ml
- **Mepolizumab initiation**
  - 290 (89%)
- **Prior omalizumab**
  - 16% (n=8)
- **Baseline OCS use at 28 days prior to mepolizumab initiation**
  - 85% (n=47)

**Purpose**

- **Overall, 18% of patients discontinued mepolizumab within the first year of treatment**
- **The most common reasons were lack of reported efficacy and patient decisión**

**Results**

- **The rate of severe exacerbations was significantly reduced following mepolizumab treatment versus the pre-treatment period**

- **Mepolizumab treatment led to a marked reduction in maintenance daily OCS use**

**Conclusions**

- **In this interim analysis of real-world data from the REALITI-A study, mepolizumab treatment was associated with reductions in the rate of clinically significant exacerbations and reductions in maintenance OCS use**
- **These results are consistent with previous mepolizumab studies6,7,11 and a previous analysis of data from early treatment initiators in the REALITI-A study.8**
- **The safety profile of mepolizumab was consistent with previous studies.9,10**
- **Taken together, these data provide further evidence of the real-world benefit of mepolizumab in a broad population of patients with severe asthma as managed in clinical care.**