ORIGINAL ARTICLE
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Real-world mepolizumab in the prospective severe asthma REALITI-A study: initial analysis

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Mepolizumab has demonstrated efficacy in patients with severe eosinophilic asthma in the controlled environment of clinical trials. These initial data from the prospective REALITI-A study show that similar results are obtained in a real-world setting. https://bit.ly/3hINnFO

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ABSTRACT

Introduction: Efficacy of mepolizumab, an anti-interleukin-5 monoclonal antibody, was demonstrated in randomised controlled trials; data on its real-world impact in routine clinical practice are starting to emerge. We assessed the effectiveness and safety of mepolizumab prescribed for patients in the real world.

Methods: REALITI-A is a global, prospective, observational cohort study, collecting data from routine healthcare visits from patients with asthma. Patients newly prescribed mepolizumab for severe asthma with 12 months of relevant medical history pre-mepolizumab (collected retrospectively) were enrolled. An initial analysis of data from early initiators who had completed 1 year of follow-up (as of February 28, 2019) was conducted. The primary objective was to compare the rate of clinically significant exacerbations (requiring oral corticosteroids (OCS) and/or hospitalisation and/or emergency department visit) before and after mepolizumab; exacerbations requiring hospitalisation and/or emergency department visit and change in maintenance OCS use were secondary objectives. Treatment-related adverse events were reported.

Results: Overall, 368 mepolizumab-treated patients were included. Rates of clinically significant exacerbations were reduced by 69% from 4.63 per person per year pre-treatment to 1.43 per person per year during follow-up ($p<0.001$), as were those requiring hospitalisation and/or emergency department visit (from 1.14 to 0.27 per person per year; 77% reduction). In 159 patients with maintenance OCS dose data available during the pre-treatment period, median daily dose decreased from 10.0 (pre-treatment) to 5.0 $mg{\cdot}day^{-1}$ by week 21–24 of follow-up, sustained until week 53–56. No new safety signals were reported.

Conclusion: These data demonstrate that the effectiveness of mepolizumab is consistent with clinical trial results under real-world settings, with significant reductions in exacerbations and daily maintenance OCS dose.