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Mepolizumab in a population with severe eosinophilic asthma and corticosteroid dependence: results from a French early access programme

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Mepolizumab is associated with improvements in several clinically meaningful outcomes and demonstrates a favourable safety profile in a population with severe eosinophilic asthma, outside of the controlled environment of a clinical trial https://bit.ly/3bckeQ3

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ABSTRACT

Background: Mepolizumab was available in France as part of an early access programme for patients with severe eosinophilic asthma (nominative *autorisation temporaire d'utilisation* [temporary use authorisation] (nATU)) before its commercialisation. This study aimed to characterise patients who received mepolizumab in the nATU.

Methods: This retrospective, observational study analysed data from the hospital medical records of patients up to 24 months after treatment initiation. Study objectives were to describe patient baseline characteristics, the evolution of disease severity and treatment modifications during follow-up; safety was also investigated.

Findings: Overall, 146 patients who received ⩾1 dose of mepolizumab were included. At inclusion, patients had a mean age of 58.2 years with a mean severe asthma duration of 13.4 years, and 37.0% had

respiratory allergies. Patients experienced, on average, 5.8 exacerbations per patient per year at baseline, 0.6 and 0.5 of which required hospitalisation and emergency department visits, respectively. These values improved to 0.6, 0.1 and 0.1 exacerbations per patient per year, respectively, at 24 months of follow-up. Most patients (92.8%) were using oral corticosteroids at baseline, compared with 34.7% by 24 months of follow-up. Moreover, mean blood eosinophil counts improved from 722 cells·μL^{-1} at baseline to 92 cells·μL^{-1} at 24 months of follow-up; lung function and asthma control followed a similar trend.

Interpretation: Results confirm findings from clinical trials, demonstrating that mepolizumab is associated with important improvements in several clinically meaningful outcomes and has a favourable safety profile in a population with severe eosinophilic asthma, outside of the controlled environment of a clinical trial.