Tezepelumab: Adis Evaluation

Key Points

- A human IgG2λ monoclonal antibody being developed by Amgen and AstraZeneca for the treatment of asthma, chronic obstructive pulmonary disease (COPD), chronic rhinosinusitis with nasal polyps (CRSwNP), chronic spontaneous urticaria and eosinophilic oesophagitis
- Received its first approval on 17 December 2021 in the USA
- Approved for use as an add-on maintenance treatment for patients aged ≥ 12 years with severe asthma

Summary

Thymic stromal lymphopoietin (TSLP) is an epithelial cell-derived cytokine implicated in the pathogenesis of asthma.

Tezepelumab (tezepelumab-ekko; TEZSPIRE™) is a first-in-class human IgG2λ monoclonal antibody that inhibits the action of TSLP. Administered subcutaneously, it is being developed by Amgen and AstraZeneca for the treatment of asthma, COPD, CRSwNP, chronic spontaneous urticaria and eosinophilic oesophagitis.

Tezepelumab received its first approval on 17 December 2021 as an add-on maintenance treatment for patients aged ≥ 12 years with severe asthma in the USA; it is the only biologic approved for severe asthma with no phenotype (e.g. eosinophilic or allergic) or biomarker limitations.

A regulatory assessment of tezepelumab for the treatment of asthma is currently underway in the EU and Japan. Tezepelumab received orphan drug designation for the treatment of eosinophilic oesophagitis in October 2021 in the USA, and is undergoing clinical development for the treatment of COPD, CRSwNP and chronic spontaneous urticaria.

Hoy, S. M. Drugs. 2022. https://doi.org/10.1007/s40265-022-01679-2