NATIONAL INSTITUTE FOR HEALTH AND CARE EXCELLENCE

Health Technology Evaluation

Benralizumab for treating relapsing or refractory eosinophilic granulomatosis with polyangiitis [ID6266]

Final scope

Remit/evaluation objective

To appraise the clinical and cost effectiveness of benralizumab within its marketing authorisation for treating relapsing or refractory eosinophilic granulomatosis with polyangiitis.

Background

Eosinophilic granulomatosis with polyangiitis (EGPA) is a rare autoimmune disease that causes inflammation of the blood vessels. It is characterised by high levels of white blood cells called eosinophils and mainly affects small to medium-sized blood vessels. Asthma is one of the key features of EGPA. Asthma may begin many years before any other symptoms. Most people with EGPA also have upper airway involvement. Later symptoms may include rashes, joint pain and swelling, peripheral neuropathy, abdominal pain, diarrhoea, shortness of breath, arrhythmia, presence of red blood cells in urine, chest pain, and heart failure.

EGPA affects around 1 in 22,000 people in the UK.[1] Based on this estimated prevalence, there are around 2,600 people in England with EGPA.[2] In the first 12 months following an EGPA diagnosis, around 19% of people had an inpatient stay in hospital related to the condition.[1] Over 50% of people experience a relapse after treatment within 5 years.[3]

The aim of treatment is initially to induce remission, then to maintain remission and treat relapse when necessary. Without treatment, life-threatening complications may develop and the condition can be fatal. Clinical guidelines recommend that the Five Factor Score, which predicts the risk of disease progression and mortality in people with EGPA, is used to inform treatment decisions.[4] Corticosteroids are the mainstay of treatment.[4] Initially high-dose oral corticosteroid, with or without intravenous corticosteroid is used to induce remission. In addition, inhaled and nasal corticosteroids are used for asthma and nasal symptoms. Corticosteroids can be slowly tapered over several months. In some people cyclophosphamide can be used to induce remission. Rituximab may be used to induce remission when cyclophosphamide is unsuitable. Maintenance treatments include oral corticosteroids and immunosuppressive agents such as methotrexate and azathioprine. There is limited evidence for the efficacy of these immunosuppressive treatments in people with EGPA and they are not specifically licensed in this indication.

The technology

Benralizumab (Fasenra, AstraZeneca) does not currently have a marketing authorisation in the UK for treating relapsing or refractory eosinophilic granulomatosis with polyangiitis. It has been studied in clinical trials as an add-on treatment for people aged 18 or older with relapsing or refractory EGPA who were receiving oral corticosteroids, with or without stable immunosuppressive therapy. Benralizumab has

a marketing authorisation for the following indication: as an add-on maintenance treatment in adult patients with severe eosinophilic asthma inadequately controlled despite high-dose inhaled corticosteroids plus long-acting β-agonists.

Intervention(s)	Benralizumab
Population(s)	Adults with relapsing or refractory eosinophilic granulomatosis with polyangiitis, receiving oral corticosteroids (OCS) with or without stable immunosuppressive therapy
Comparators	Established clinical management without benralizumab, including: • Corticosteroids (do not currently have a marketing authorisation in the UK for this indication) • Cyclophosphamide (does not currently have a marketing authorisation in the UK for this indication) • Other immunosuppressive agents e.g. methotrexate, azathioprine, mycophenolate mofetil (do not currently have a marketing authorisation in the UK for this indication) • Rituximab (does not currently have a marketing authorisation in the UK for this indication)
Outcomes	The outcome measures to be considered include: • mortality • remission rates • total accrued duration of remission • time to first relapse • number of relapses • reduction/cessation in systemic steroid use • use of immunosuppressants • vasculitis activity scores • pulmonary function • adverse effects of treatment • health-related quality of life

Economic analysis	The reference case stipulates that the cost effectiveness of treatments should be expressed in terms of incremental cost per quality-adjusted life year. The reference case stipulates that the time horizon for estimating clinical and cost effectiveness should be sufficiently long to reflect any differences in costs or outcomes between the technologies being compared. Costs will be considered from an NHS and Personal Social Services perspective. The availability of any commercial arrangements for the intervention, comparator and subsequent treatment technologies will be taken into account. The availability and cost of biosimilar and generic products should be taken into account.
Other considerations	Guidance will only be issued in accordance with the marketing authorisation. Where the wording of the therapeutic indication does not include specific treatment combinations, guidance will be issued only in the context of the evidence that has underpinned the marketing authorisation granted by the regulator.
Related NICE recommendations	**Related technology appraisals:** Benralizumab for treating severe eosinophilic asthma (2019) NICE technology appraisal 565. Mepolizumab for treating severe eosinophilic asthma (2021) NICE technology appraisal 671. Reslizumab for treating severe eosinophilic asthma (2017) NICE technology appraisal 479 **Related technology appraisals in development:** Benralizumab for treating hypereosinophilic syndrome in people 12 years and over [6322] Publication date to be confirmed. Benralizumab with mometasone furoate for treating severe nasal polyps [ID1659] Publication date to be confirmed.
Related National Policy	NHS England (2013/14) NHS Standard Contract for Specialised Rheumatology Services (Adult) Ref A13/S/a NHS England (2015) Clinical Commissioning Policy: Rituximab for the treatment of ANCA-associated vasculitis in adults Ref A13/P/a. The NHS Long Term Plan (2019) NHS Long Term Plan

	NHS England (2023) Manual for prescribed specialist services (2023/2024) Chapter 5.

References

1. Hwee, J., Harper, L., Fu, Q., Nirantharakumar, K., Mu, G., & Jakes, R. W. (2024). Prevalence, incidence and healthcare burden of eosinophilic granulomatosis with polyangiitis in the United Kingdom. ERJ Open Research.

2. Office for National Statistics (ONS), released 23 November 2023, ONS website, statistical bulletin, Population estimates for England and Wales: mid-2022

3 Smith, R. M., et al. (2020). Rituximab as therapy to induce remission after relapse in ANCA-associated vasculitis. Annals of the rheumatic diseases, 79(9), 1243-1249.

4 Emmi, G., et al (2023). Evidence-Based Guideline for the diagnosis and management of eosinophilic granulomatosis with polyangiitis. Nature reviews Rheumatology, 19(6), 378-393.