NATIONAL INSTITUTE FOR HEALTH AND CARE EXCELLENCE

Single Technology Appraisal

Belumosudil for treating chronic graft versus host disease after 2 or more lines of systemic therapy [ID4021]

Final scope

Remit/evaluation objective

To appraise the clinical and cost effectiveness of belumosudil within its marketing authorisation for treating chronic graft versus host disease in people 12 years and over after 2 or more lines of systemic therapy.

Background

Graft versus host disease (GVHD) usually occurs after an allogeneic haematopoietic stem cell transplant (HSCT) when donated white T-cells attack the body's own cells. Chronic GVHD (cGVHD) results in fibrotic skin disease, bronchiolitis, salivary and lacrimal gland disease, and eosinophilic fasciitis, and typically occurs later after a HSCT (whereas acute GVHD usually occurs much sooner after a HSCT).[1] Manifestations typically appear within the first year after HCT, when immunosuppressive medications are reduced. NHS England's clinical commissioning policy states that cGVHD is staged as limited or extensive, and should be graded as mild, moderate or severe.[2] cGVHD causes severe morbidity and mortality mainly because of infections resulting from immunodeficiency, as well as damage to organs such as the lungs and liver. People who receive a transplant from a mismatched unrelated donor are more at risk of developing cGVHD. People from a non-white family background are less likely to find a related donor match which results in people from ethnic minority family background being at increased risk of cGVHD.

In 2019 there were 1,506 allogeneic transplants in England.[3] For malignant indications, approximately 33% of adult and 16% of paediatric allograft recipients developed cGVHD.[3] For non-malignant indications the corresponding figure was 23% in adult and 12% in paediatric allograft recipients. Between 5 and 11% of allograft recipients are expected to develop extensive cGVHD that may require second or subsequent lines of therapy. Between 2016 and 2020, 713 people were diagnosed with extensive cGVHD in England.[3]

In clinical practice, systemic corticosteroids, with or without a calcineurin inhibitor (tacrolimus or cyclosporine), are used as first line treatment of cGVHD. Second line treatment could be any one treatment from: extracorporeal photophoresis (ECP), imatinib, rituximab, sirolimus, mycophenolate mofetil and, if not used at first line, a calcineurin inhibitor. For those whose disease does not respond adequately to a second line treatment, a third line treatment would be used. This could be any of the treatments that were available but not used at second line. Topical treatments and organ-specific supportive agents, including antibiotics and vaccinations, also have an important role in the effective management of cGVHD.[5]

The technology

Belumosudil (REZUROCK, Sanofi) is indicated in the UK for treatment of people aged 12 years and older with chronic graft-versus-host disease who have received at least two prior lines of systemic therapy.

Intervention(s)	Belumosudil with established clinical management
Population(s)	People aged 12 and over with chronic graft versus host disease after 2 or more lines of systemic therapy.
Subgroups	If the evidence allows the following subgroups will be considered. These include: • Different organs or tissues affected by cGVHD • Number and type of previous treatments
Comparators	Established clinical management without belumosudil, including: • Extracorporeal electrophoresis • Imatinib • Rituximab • Sirolimus • Mycophenolate mofetil • Tacrolimus • Cyclosporine
Outcomes	The outcome measures to be considered include: • response to treatment (including complete response and overall response) • corticosteroid sparing • immunosuppressant sparing • mortality • adverse effects of treatment • failure free survival • 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 of any managed access arrangement for the intervention 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 appraisals in development:** Ruxolitinib for treating chronic graft versus host disease refractory to corticosteroids in people aged 12 and over [ID2716]. Suspended.
Related National Policy	The NHS Long Term Plan, 2019. NHS Long Term Plan NHS England (2018) Manual for prescribed specialised services 2018/19 Chapters 29 and 138 NHS England (2017) Clinical Commissioning Policy: Treatments for Graft versus Host Disease (GvHD) following Haematopoietic Stem Cell Transplantation. 16069/P NHS England (2017) Commissioning Policy: Second allogeneic haematopoietic stem cell transplant for relapsed disease (all ages) NHS England (2013) B04/S/a 2013/14 NHS standard contract for haematopoietic stem cell transplantation (adult) NHS England (2013) B04/S/b 2013/14 NHS standard contract for haematopoietic stem cell transplantation (children) Department of Health and Social Care, NHS Outcomes Framework 2016-2017: Domains 1, 2 and 3 https://www.gov.uk/government/publications/nhs-outcomes-framework-2016-to-2017

References

1. Cancer Research UK (2022) Types and Grades of GvHD. Accessed August 2022

2. NHS England (2017) Clinical Commissioning Policy: Treatments for Graft versus Host Disease (GvHD) following Haematopoietic Stem Cell Transplantation. 16069/P. Accessed May 2022.

3. British Society of Blood and Marrow Transplantation and Cellular Therapies (BSBMTCT) (2022). 13th Report to Specialist Commissioners Report 2020.

4. Mary E. D. Flowers, Paul J. Martin; How we treat chronic graft-versus-host disease. *Blood* 2015; 125 (4): 606–615. doi: https://doi.org/10.1182/blood-2014-08-551994 Accessed 11/2022

5. Dignan FL et al. (2012) Organ-specific management and supportive care in chronic graft-versus-host disease. British Journal of Haematology 158(1):62-78. Accessed May 2022.