NATIONAL INSTITUTE FOR HEALTH AND CARE EXCELLENCE

Health Technology Evaluation

Vorasidenib for treating astrocytoma or oligodendroglioma with IDH1 or IDH2 mutations after surgery in people 12 years and over

Draft scope

Draft remit/evaluation objective

To appraise the clinical and cost effectiveness of vorasidenib within its marketing authorisation for treating astrocytoma or oligodendroglioma with IDH1 or IDH2 mutations after surgery in people 12 years and over.

Background

Gliomas are the most common type of primary brain tumour. They develop from the glial cells that support the nerve cells of the brain and spinal cord. The 3 main types of glioma in adults are astrocytoma (IDH mutant), oligodendroglioma (IDH mutant) and glioblastoma (IDH wildtype). Astrocytomas can be categorised into grade 2, 3 or 4, depending on how quickly they are likely to grow, and oligodendrogliomas can be categorised into grade 2 or 3. IDH mutant means that there are mutations in the IDH (idocitrate dehydrogenase) gene.[1] There are 2 main types of IDH mutation that are found in gliomas. These are IDH1 and IDH2 mutations, which can be found in nearly 80% of grades 2 and 3 oligodendrogliomas and astrocytomas.[2]

There are around 12,700 new cases of brain tumour each year in the UK.[3] In England, between 1995 and 2017, around 9% of brain tumours diagnosed were astrocytomas,[4] and around 3% diagnosed were oligodendrogliomas.[5] 10-year survival for people with a brain tumour is 11%.[3]

Treatment for glioma depends on the grade of the tumour, where the tumour is in the brain, if it is possible to remove the tumour with surgery, age and if symptoms are present. NICE's guideline on Brain tumours (primary) and brain metastases in over 16s recommends that low-grade glioma (grade 1 or 2) is usually treated with surgery if possible, which may achieve either complete or partial macroscopic resection of the tumour. After surgery, depending on age, whether there is residual tumour postoperatively, and the symptoms, people with low-grade oligodendroglioma or astrocytoma could be offered radiotherapy followed by up to 6 cycles of PCV chemotherapy (procarbazine, CCNU [lomustine] and vincristine), or active monitoring may be considered. Current treatment for children and young people with low-grade glioma also includes surgery, followed by systemic chemotherapy or radiotherapy at first relapse or progression.

High-grade glioma (grade 3 or 4) is also usually treated with surgery, after which people may have radiotherapy and chemotherapy, depending on age, type of glioma and performance status. NICE's technology appraisal 121 for high-grade glioma recommends temozolomide as an option for treating newly diagnosed glioblastoma multiforme (GBM) in patients with a World Health Organization (WHO) performance status of 0 or 1, and carmustine implants for treating newly diagnosed high-grade glioma only for patients in whom 90% or more of the tumour has been resected.

The technology

Vorasidenib (Voranigo, Servier Laboratories) does not currently have a marketing authorisation in the UK for treating astrocytoma or oligodendroglioma with IDH1 or IDH2 mutations. It has been studied in a clinical trial compared with placebo for people aged 12 and over with residual or recurrent grade 2 glioma with an IDH1 or IDH2 mutation who have undergone surgery as their only treatment.

Intervention(s)	Vorasidenib
Population(s)	People 12 years and over with astrocytoma or oligodendroglioma with IDH1 or IDH2 mutations, who have had surgery
Comparators	Established clinical management without vorasidenib.
Outcomes	The outcome measures to be considered include: • overall survival • progression-free survival • response rates • 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.
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:** Dabrafenib with trametinib for treating BRAF V600E mutation-positive glioma in children and young people aged 1 year and over (2024) NICE technology appraisal guidance 977.

	Carmustine implants and temozolomide for the treatment of newly diagnosed high-grade glioma (2007) NICE technology appraisal guidance 121. **Related NICE guidelines:** Suspected neurological conditions: recognition and referral (2019, updated 2023) NICE guideline 127. Brain tumours (primary) and brain metastases in over 16s (2018, updated 2021) NICE guideline 99. **Related interventional procedures:** Photodynamic therapy for brain tumours (2009) NICE interventional procedures guidance 290. **Related quality standards:** Brain tumours (primary) and brain metastases in over 16s (2021) NICE quality standard 203. Suspected neurological conditions: recognition and referral (2021) NICE quality standard 198.
Related National Policy	The NHS Long Term Plan (2019) NHS Long Term Plan NHS England (2023) Manual for prescribed specialist services (2023/2024) Chapter 106. Specialist cancer services for children and young people. NHS England (2020) Temozolomide as adjuvant treatment for people with newly diagnosed anaplastic astrocytoma without 1p/19q codeletion following surgery and radiotherapy (Adults) NHS England Reference: 200203P NHS England (2013) 2013/14 NHS Standard Contract. For cancer: brain/central nervous system (adult) B13/S/a NHS England (2013) 2013/14 NHS Standard Contract for Cancer: Chemotherapy (Adult) B15/S/a NHS England (2013) 2013/14 NHS Standard Contract for Cancer: Chemotherapy (Children, Teenagers and Young Adults) B12/S/b NHS England (2013) 2013/14 NHS standard contract for nhs standard service specification template for cancer: chemotherapy (children, teenagers and young adults) B15/S/b NHS England (2013) 2013/14 NHS Standard Contract for Cancer: Radiotherapy (All Ages) B01/S/a

Questions for consultation

Where do you consider vorasidenib will fit into the existing care pathway for astrocytoma or oligodendroglioma with IDH1 or IDH2 mutations?

Are radiotherapy and PCV (procarbazine, CCNU [lomustine] and vincristine) chemotherapy relevant comparators?

Is vorasidenib likely to be used for high grade gliomas?

Please select from the following, will vorasidenib be:

A. Prescribed in primary care with routine follow-up in primary care
B. Prescribed in secondary care with routine follow-up in primary care
C. Prescribed in secondary care with routine follow-up in secondary care
D. Other (please give details):

For comparators and subsequent treatments, please detail if the setting for prescribing and routine follow-up differs from the intervention.

Would vorasidenib be a candidate for managed access?

Do you consider that the use of vorasidenib can result in any potential substantial health-related benefits that are unlikely to be included in the QALY calculation?

Please identify the nature of the data which you understand to be available to enable the committee to take account of these benefits.

NICE is committed to promoting equality of opportunity, eliminating unlawful discrimination and fostering good relations between people with particular protected characteristics and others. Please let us know if you think that the proposed remit and scope may need changing in order to meet these aims. In particular, please tell us if the proposed remit and scope:

- could exclude from full consideration any people protected by the equality legislation who fall within the patient population for which vorasidenib will be licensed;
- could lead to recommendations that have a different impact on people protected by the equality legislation than on the wider population, e.g. by making it more difficult in practice for a specific group to access the technology;
- could have any adverse impact on people with a particular disability or disabilities.

Please tell us what evidence should be obtained to enable the committee to identify and consider such impacts.

NICE intends to evaluate this technology through its Single Technology Appraisal process. (Information on NICE's health technology evaluation processes is available at https://www.nice.org.uk/about/what-we-do/our-programmes/nice-guidance/nice-technology-appraisal-guidance/changes-to-health-technology-evaluation).

References

1. Cancer Research UK. Glioma https://www.cancerresearchuk.org/about-cancer/brain-tumours/types/glioma-adults. Accessed August 2024.

2. ESMO. ISH1/2 Mutations in Glioma: ESMO Biomarker Factsheet https://oncologypro.esmo.org/education-library/factsheets-on-biomarkers/idh1-2-mutations-in-glioma. Accessed August 2024.

3. Cancer Research UK. Brain, other CNS and intracranial tumours statistics. https://www.cancerresearchuk.org/health-professional/cancer-statistics/statistics-by-cancer-type/brain-other-cns-and-intracranial-tumours. Accessed August 2024.

4. Cancer Research UK. Astrocytoma https://www.cancerresearchuk.org/about-cancer/brain-tumours/types/astrocytoma-glioblastoma-multiforme. Accessed August 2024.

5. Cancer Research UK. Oligodendroglioma https://www.cancerresearchuk.org/about-cancer/brain-tumours/types/oligodendroglioma. Accessed August 2024.