

Neuro Oncol. 2026 Jun 8;noag135. doi: 10.1093/neuonc/noag135. Online ahead of print.

BRAF-altered glioma in adults and children: A Society for Neuro-Oncology (SNO) and European Society for Neuro-Oncology (EANO) consensus review on clinical management and future directions

Karisa C Schreck^{1 2}, Macarena I de la Fuente^{3 4}, Mary Jane Lim Fat⁵, Sybren L N Maas^{6 7}, Jean M Mulcahy Levy^{3 4}, Giuseppe Lombardi⁸, Sebastien Perrault⁹, Claudia K Petritsch^{10 11 12}, Kenneth Aldape¹³, Susan M Chang¹⁴, Johnny Duerinck¹⁵, Matthias Holdhoff¹⁶, Tomas Kazda¹⁷, Emilie Le Rhun¹⁸, Giuseppe Minniti¹⁹, Mark V Mishra²⁰, Sabine Mueller²¹, Marta Padovan⁸, Matthias Preusser²², Marion Smits^{23 24 25}, Michael Weller²⁶, Patrick Y Wen²⁷, Martin van den Bent²⁸, Marjolein Geurts^{28 29}

Affiliations

PMID: 42261252 DOI: 10.1093/neuonc/noag135

Abstract

Oncogenic BRAF alterations occur in a subset of diffuse gliomas across WHO grades and are increasingly identified through modern molecular diagnostics. In addition to standard glioma therapies, targeted treatments are available for patients with BRAF-altered glioma supported by variable evidence spanning randomized trials, single-arm studies, and real-world evidence. This joint consensus review from the Society for Neuro-Oncology (SNO) and the European Association of Neuro-Oncology (EANO) synthesizes current knowledge on the diagnosis and management of BRAF-altered gliomas across age groups, tumor grades, and lines of therapy. Particular emphasis is placed on expert consensus in clinical scenarios where high-quality trial evidence remains limited. The review addresses rationale testing for BRAF alterations, selection, and monitoring of targeted therapies, management of treatment-related toxicities, approaches to resistance, and priorities for future research. It aims to provide practical, evidence-based guidance for clinicians while highlighting gaps to inform prospective studies.

Keywords: BRAF; consensus review; glioblastoma; glioma; targeted therapy.

Plain language summary

Some brain tumors called gliomas have changes in a gene called BRAF, which can help guide treatment. These changes can occur in both children and adults and in tumors of different grades. In addition to standard treatments such as surgery, radiation, and chemotherapy, some patients may benefit from targeted drugs that act on BRAF. This joint review from brain tumor experts summarizes what how to test for BRAF changes, when targeted treatments may be helpful, how to monitor response, and how to manage side effects or drug resistance. It also highlights important unanswered questions for future research.

© The Author(s) 2026. Published by Oxford University Press on behalf of the Society for Neuro-Oncology. All rights reserved. For commercial re-use, please contact reprints@oup.com for reprints and translation rights for reprints. All other permissions can be obtained through our RightsLink service via the Permissions link on the article page on our site—for further information please contact journals.permissions@oup.com.

[PubMed Disclaimer](#)