

High-Grade glioma treatment

- [MiR 329/449 Suppresses Cell Proliferation, Migration and Synergistically Sensitizes GBM to TMZ by Inhibiting Src/FAK, NF-kB, and Cyclin D1 Activity](#)
- [IDH1 Mutation Impacts DNA Repair Through ALKBH2 Rendering Glioblastoma Cells Sensitive to Artesunate](#)
- [Epigenetic Alterations in Glioblastoma Multiforme as Novel Therapeutic Targets: A Scoping Review](#)
- [RIPK1 in Diffuse Glioma Pathology: From Prognosis Marker to Potential Therapeutic Target](#)
- [Oxamate, an LDHA Inhibitor, Inhibits Stemness, Including EMT and High DNA Repair Ability, Induces Senescence, and Exhibits Radiosensitizing Effects in Glioblastoma Cells](#)
- [Evaluating the Antitumor Potential of Cannabichromene, Cannabigerol, and Related Compounds from Cannabis sativa and Piper nigrum Against Malignant Glioma: An In Silico to In Vitro Approach](#)
- [Analysis of the Expression Patterns of Tumor Necrosis Factor Alpha Signaling Pathways and Regulatory MicroRNAs in Astrocytic Tumors](#)
- [The Circadian Rhythm Gene Network Could Distinguish Molecular Profile and Prognosis for Glioblastoma](#)

Treatment for [glioblastoma](#) typically includes a combination of surgery, radiation therapy, and chemotherapy. Surgery is typically the first step in treatment, with the goal of removing as much of the tumor as possible. Radiation therapy and chemotherapy are often used after surgery to help kill any remaining cancer cells. In some cases, additional treatments such as targeted therapy or immunotherapy may also be used. It's important to note that treatment options and recommendations can vary depending on the individual case and the patient's overall health. Additionally, the development of new treatment options is an active area of research.

As the biological challenges and genetic basis of [glioblastoma](#) have become more understood, new therapeutic strategies may lead to more durable clinical responses and long-term remissions ¹⁾

Due to the lack of [consensus](#), there exists variability amongst surgeons and centers regarding [glioblastoma](#) treatment decisions. Though, objective data about the extent of this heterogeneity is still lacking. Gerritsen et al. aimed to evaluate and analyze the similarities and differences in neurosurgical practice patterns.

The survey was distributed to members of the neurosurgical societies of [the Netherlands](#) (NVVN), [Europe](#) (EANS), the [United Kingdom](#) (SBNS), and the United States (CNS) between January and March 2021 with questions about the selection of surgical modality and decision making in glioblastoma patients.

Survey respondents (224 neurosurgeons) were from 41 countries. Overall, the most notable differences observed were the presence and timing of a multidisciplinary tumor [board](#); the importance and role of various perioperative factors in the decision-making process, and the preferred treatment in various glioblastoma cases case variants. Tumor boards were more common at [academic centers](#). The intended [extent of resection](#) for glioblastoma [resections](#) in [eloquent](#) areas was limited more often in European [neurosurgeons](#). They found a strong relationship between the surgeon's theoretical

survey answers and their actual approach in presented patient cases. In general, the factors which were found to be theoretically the most important in surgical decision-making were confirmed to influence the respondents' decisions to the greatest extent in practice as well.

This survey illustrates the theoretical and practical heterogeneity among surgeons and centers in their decision-making and treatment selection for glioblastoma patients. These data invite further evaluations to identify key variables that can be optimized and may therefore benefit from consensus ²⁾.

Standard of care

[High-Grade glioma standard of care](#).

Postoperative management

The criteria used to assess [extent of resection](#) (EOR) have an impact on findings of association between EOR and [survival](#). Current assessment of EOR mainly relies on pre and [postoperative](#) contrast-enhanced [T1 weighted images](#) (CE-T1WI).

This method is subject to several inherent limitations, including failure to evaluate nonenhancing components of glioma.

To solve this problem, [fluid attenuated inversion recovery](#) (FLAIR) imaging is added in the [RANO criteria](#) ³⁾.

From the introduction of the first standard of care (SOC) established in [2005](#) in patients with a new diagnosis of Glioblastoma, a great number of trials have been conducted to improve the actual SOC, but the real turning point has never been achieved or is yet to come. Surgical gross total resection, with at least one more reoperation, radiation therapy plus concomitant and adjuvant temozolomide chemotherapy currently remains the current SOC for patients with Glioblastoma ⁴⁾.

[Antiepileptic](#) medications may increase radiosensitivity, and therefore improve clinical outcomes, specifically in [glioblastoma multiforme](#) patients ⁵⁾.

Surgery

see [High-grade glioma surgery](#).

¹⁾
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