



A service of the [U.S. National Library of Medicine](#)
and the [National Institutes of Health](#)

Select **19188181**

1: [Clin Cancer Res.](#) 2009 Feb 1;15(3):1064-8.



Phase II trial of Gliadel plus O6-benzylguanine in adults with recurrent glioblastoma multiforme.

[Quinn JA](#), [Jiang SX](#), [Carter J](#), [Reardon DA](#), [Desjardins A](#), [Vredenburgh JJ](#), [Rich JN](#), [Gururangan S](#), [Friedman AH](#), [Bigner DD](#), [Sampson JH](#), [McLendon RE](#), [Herndon JE 2nd](#), [Threatt S](#), [Friedman HS](#).

Department of Surgery, Pathology, Biostatistics, and Bioinformatics, Duke University Medical Center, Durham, North Carolina 27710, USA. seagr003@mc.duke.edu

PURPOSE: This phase II trial was designed to define the efficacy of Gliadel wafers in combination with an infusion of O6-benzylguanine (O6-BG) that suppresses tumor O6-alkylguanine-DNA alkyltransferase (AGT) levels in patients with recurrent glioblastoma multiforme for 5 days and to evaluate the safety of this combination therapy.

EXPERIMENTAL DESIGN: This was a phase II, open-label, single center trial. On gross total resection of the tumor, up to eight Gliadel wafers were implanted. Bolus infusion of O6-BG was administered at 120 mg/m² over 1 hour on days 1, 3, and 5, along with a continuous infusion at 30 mg/m²/d. The primary end points were 6-month overall survival (OS) and safety, and the secondary end points were 1-year, 2-year, and median OS. **RESULTS:** Fifty-two patients were accrued. The 6-month OS was 82% [95% confidence interval (95% CI), 72-93%]. The 1- and 2-year OS rates were 47% (95% CI, 35-63%) and 10% (95% CI, 3-32%), respectively. The median OS was 50.3 weeks (95% CI, 36.1-69.4 weeks). Treatment-related toxicity with this drug combination included grade 3 hydrocephalus (9.6%), grade 3 cerebrospinal fluid (CSF) leak (19.2%), and grade 3 CSF/brain infection (13.4%).

CONCLUSION: The efficacy of implanted Gliadel wafers may be improved with the addition of O6-BG. Although systemically administered O6-BG can be coadministered with Gliadel wafers safely, it may increase the risk of hydrocephalus, CSF leak, and CSF/brain infection. Future trials are required to verify that inhibition of tumor AGT levels by O6-BG results in increased efficacy of Gliadel wafers without added toxicity.

Publication Types:

- [Research Support, N.I.H., Extramural](#)
- [Research Support, Non-U.S. Gov't](#)

PMID: 19188181 [PubMed - in process]
