



[Online Version](#)

[Search](#)

[Shopping Cart](#)

[Order History](#)

[Activate Access](#)

[Register](#)

[Services Home](#)

[Alerting](#)

[ActiveSearch](#)

[Downloads](#)

[Exports](#)

## Article

Back To: [Home](#) | [Publication](#) | [Issue](#)



The Canadian Journal of Neurological Sciences

**Issue:** Volume 34, Number 4 / November 2007

**Pages:** 402 - 410

**URL:** [Linking Options](#)

### Adjuvant Chemotherapy for Adults with Malignant Glioma: A Systematic Review

James Perry <sup>A1</sup>, Normand Laperriere <sup>A2</sup>, Lisa Zuraw <sup>A3</sup>, Alexandra Chambers <sup>A3</sup>, Karen Spithoff <sup>A3</sup>, J. Gregory Cairncross <sup>A4</sup>

<sup>A1</sup> Odette Cancer Centre, Sunnybrook Health Sciences Centre, Toronto, Ontario

<sup>A2</sup> Princess Margaret Hospital, Toronto, Ontario

<sup>A3</sup> Cancer Care Ontario Program in Evidence-Based Care, McMaster University, Hamilton, Ontario

<sup>A4</sup> Department of Clinical Neurosciences and Hotchkiss Brain Institute, University of Calgary, Calgary, Alberta, Canada

#### Abstract:

**Objective:** This systematic review examines the role of chemotherapy following surgery and external beam radiotherapy for adults with newly diagnosed malignant glioma. **Methods:** MEDLINE, EMBASE, and the Cochrane Library databases were searched to August 2006 to identify relevant randomized controlled trials (RCTs) and meta-analyses. Proceedings from the 1997 to 2006 annual meetings of the American Society of Clinical Oncology were also searched. **Results:** Two RCTs reported a survival advantage in favour of radiotherapy with concomitant and adjuvant temozolomide compared with radiotherapy alone in patients with anaplastic astrocytoma or glioblastoma. Twenty-six RCTs and two meta-analyses detected either no advantage or a small survival advantage in favour of adjuvant chemotherapy. **Conclusion:** Concomitant temozolomide during radiotherapy and post-radiation adjuvant temozolomide is recommended for all patients ages 18-70 with newly diagnosed glioblastoma multiforme who are fit for radical therapy (ECOG 0-1). Temozolomide may be considered in other situations (i.e., ECOG 2, biopsy only, age >70, intermediate grade glioma), but there is no high-level evidence to support this decision. Moreover, there are few data on long-term toxicities or quality of life with temozolomide. Adjuvant chemotherapy may be an option for

#### Full Text Access

##### Full Text Secured

The full text of this article is secured to subscribers. To gain access, you may:

- Subscribe to this publication.

- Add this item to your shopping cart for purchase later.

- Purchase this item now.

- Log in to verify access.

younger patients with anaplastic (grade 3) astrocytoma and patients with pure or mixed oligodendroglioma. However, there is no evidence of a survival advantage from adjuvant chemotherapy in these patients, and treatment-related adverse effects and their impact upon quality of life are poorly studied. The combination of procarbazine, lomustine, and vincristine (PCV) is not recommended for patients with anaplastic oligodendroglioma and oligoastrocytoma.

---

*The references of this article are secured to subscribers.*



For information about this web site e-mail to: [support@metapress.com](mailto:support@metapress.com)  
Copyright © Canadian Journal of Neurological Sciences. All rights reserved.

Remote Address: 84.220.75.90 • Server: MPWEB19  
HTTP User Agent: Mozilla/4.0 (compatible; MSIE 7.0; Windows NT 5.1)