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A		REGIMEN NAME	BEVACIZUMAB Treatment
<b>Cancer</b>		Malignant Glioma – Glioblastoma	Palliative intent
<b>Regimen Category</b>	<b>Emergent:</b> A regimen which has not yet been accepted as a Standard Regimen but may become so based upon emergent Phase II and Phase III clinical trial data. This is published on this website for your information, but does not imply endorsement by the CCO Disease Site Group.		
<b>Rationale and Uses</b>	Treatment of patients with glioblastoma (WHO Grade IV) after relapse or disease progression, following prior therapy (radiation plus temozolomide)		

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B				DRUG REGIMEN
<b><u>BEVACIZUMAB</u></b>	10 mg/kg	IV over 90 minutes for initial dose; if tolerated next infusion can be given over 60 minutes; can thereafter be given over 30 minutes as maintenance dose*	Day 1	
* Alternative infusion rates have been described by Reidy et al, but this is not approved by Health Canada.				

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C		CYCLE FREQUENCY
<b>REPEAT EVERY 14 DAYS</b>	<i>Until disease progression or unacceptable toxicity.</i>	

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**D****PREMEDICATION AND SUPPORTIVE MEASURES**

ANTIEMETIC REGIMENS:

[MINIMAL](#)[▲ Back to Top](#)**E****DOSE MODIFICATION**

Doses should be modified according to the protocol by which the patient is being treated. The following recommendations are in use at some centres.

Dosage adjustment for toxicity

Bevacizumab action	Toxicity		
	Any grade	Grade 3	Grade 4
Hold:	Uncontrollable hypertension	Proteinuria	
	Delayed wound healing		
	Surgery		
Discontinue:	Wound dehiscence		
	Tracheo-esophageal fistula		Fistula
	GI Perforation		Hypertension
	RPLS	Bleeding	Bleeding
	Arterial thromboembolism		Venous thromboembolism
	Symptomatic cardiac failure		Proteinuria
	Hemoptysis > 2.5 mL		
Intracranial bleeding			

Renal Impairment

No information found. Not a major organ for bevacizumab metabolism or excretion.

Hepatic Impairment

No information found. Not a major organ for bevacizumab metabolism or excretion.

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**F****ADVERSE EFFECTS**

Refer to Bevacizumab drug monograph for full details of adverse effects.

Most Frequently Occurring Adverse Effects

- Fatigue
- Hypertension (may be severe)
- Proteinuria
- Headache
- Diarrhea, mucositis
- Bleeding, hemorrhage (may be severe)
- Infection (may be severe)
- Skin/rash (may be severe)
- Myalgia, arthralgia
- Dysgeusia, dysphonia
- Anorexia, loss of weight

Less Common but may be Severe or Life-Threatening

- Arterial/venous thromboembolism
- GI perforation, fistulas, wound dehiscence, obstruction
- Pneumonitis
- Cardiac failure, arrhythmia

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**G****INTERACTIONS**

Refer to Bevacizumab drug monograph for full details.

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**H****DRUG ADMINISTRATION AND SPECIAL PRECAUTIONS**

Refer to Bevacizumab drug monograph for full details.

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**I****CLINICAL MONITORING**

- Routine clinical assessment of perforation, fistula, other GI effects, hypertension, cardiac, wound healing, infection, fatigue, hemorrhage, thromboembolism. Grade toxicity using the current [NCI Common Toxicity Criteria Version](#).
- Clinical assessment of wound healing process.
- Monitor blood pressure every 2-3 weeks during bevacizumab therapy and more frequently in patients who develop hypertension.
- Baseline and regular dipstick urinalysis; 24 hour urine collection is recommended for patients with a 2+ or greater urine dipstick.
- Baseline and regular CBC

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**J****ADMINISTRATIVE INFORMATION**

Patient visit	Approximately 30-90 minutes
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**K**

**KEY REFERENCE(S)**

Friedman HS, Prados MD, Wen PY, et al. Bevacizumab Alone and in Combination With Irinotecan in Recurrent Glioblastoma. *J Clin Oncol* 2009; 27(28): 4733-40.

Kreisl TN, Kim L, Moore K, et al. Phase II Trial of Single-Agent Bevacizumab Followed by Bevacizumab Plus Irinotecan at Tumor Progression in Recurrent Glioblastoma. *J Clin Oncol* 2009; 27(5): 740-5.

Reidy DL, Chung KY, Timoney JP, et al. Bevacizumab 5 mg/kg can be infused safely over 10 minutes. *Journal of Clinical Oncology* 2007; 25: 2691-5.

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June 2010: Modified sections A and D