Lomustine 130mg/m^2 Therapy

INDICATIONS FOR USE:

INDICATION	ICD10	Regimen Code	Reimbursement Status
Recurrent malignant glioma	C71	00805a	Hospital

TREATMENT:

The starting dose of the drugs detailed below may be adjusted downward by the prescribing clinician, using their independent medical judgement, to consider each patients individual clinical circumstances.

Lomustine is administered every 6 weeks until disease progression or unacceptable toxicity occurs.

Day	Drug	Dose	Route	Cycle
1	Lomustine[a, b]	[c] 130mg/m^2 (Max dose 280mg)	PO	Every 6 weeks
[a]Lomustine is available as 40mg capsules.				
[b]Lomustine is an unlicensed drug. If the drug is not to be dispensed by the hospital, then the hospital should ensure communication with the patient's community pharmacy to ensure there is no interruption in treatment				
[C]The dose may be reduced for patients with prior treatment with alkylating agents at the discretion of the prescribing Consultant				

ELIGIBILITY:

- Indication as above
- ECOG 0-2
- Adequate haematologic, renal and hepatic function

EXCLUSIONS:

- Hypersensitivity to lomustine or any of the excipients
- Pregnancy
- Breastfeeding

PRESCRIPTIVE AUTHORITY:

The treatment plan must be initiated by a Consultant Medical Oncologist

TESTS:

Baseline tests:

- FBC, renal and liver profile
- Pulmonary function tests as clinically indicated for patients considered high risk of pulmonary toxicity

Regular tests:

- FBC, renal and liver profile
- Pulmonary function tests as clinically indicated for patients considered high risk of pulmonary toxicity

Disease monitoring:

Disease monitoring should be in line with the patient's treatment plan and any other test/s as directed by the supervising Consultant.

DOSE MODIFICATIONS:

- Any dose modification should be discussed with a Consultant.

Haematological:

Table 1: Dose modifications in haematological toxicity

ANC (x 10^9/L)		Platelets (x 10^9/L)	Dose
≥1.0	and	≥100	100%
<1.0	And/or	< 80	Delay lomustine treatment until ANC ≥1.0 and platelets ≥100. Consider dose reduction

Renal and Hepatic Impairment:

Table 2: Dose modification in renal and hepatic impairment

Renal Impairment		**Hepatic Impairment**
CrCl (ml/min)	**Dose**	Lack of information available. Consider dose reduction.
>60	100%	
45-60	75%	
30-45	50%	
<30	Not recommended	

Management of adverse events:

Table 3: Dose Modifications for Adverse Events

Adverse reactions	Recommended dose modification
Grade ≥3 non-haematological toxicity	Delay until resolution to baseline Reduce dose by 50% for clinically relevant toxicities. Resume full dose if event does not recur for 42 days after restarting therapy.

SUPPORTIVE CARE:

EMETOGENIC POTENTIAL:

Lomustine: Moderate to High **(Refer to local policy)**

PREMEDICATIONS: None usually required unless the patient has had a previous hypersensitivity.

OTHER SUPPORTIVE CARE:

- Lomustine can cause birth defects. Men and women are recommended to take contraceptive precautions during therapy with lomustine and for 6 months after treatment.

ADVERSE EFFECTS / REGIMEN SPECIFIC COMPLICATIONS:

The adverse effects listed are not exhaustive. Please refer to the relevant Summary of Product Characteristics for full details.

- **Neutropenia:** Fever or other evidence of infection must be assessed promptly and treated appropriately.
- **Pulmonary toxicity**: Lomustine should be administered with caution in patients with a baseline below 70% of predicted forced vital capacity (FVC) or carbon monoxide diffusing capacity (DLCO.) Baseline pulmonary function studies should be carried out and repeated as clinically indicated during treatment. Pulmonary toxicity associated with lomustine appears to be dose- related.

DRUG INTERACTIONS:

- Current drug interaction databases should be consulted for more information.

REFERENCES:

1. Wick W, et al. Phase III Study of Enzastaurin Compared with Lomustine in the Treatment of Recurrent Intracranial Glioblastoma. J Clin Oncol 2010; 28(7):1168-1174
2. Dosage Adjustment for Cytotoxics in Renal Impairment January 2009; North London Cancer Network.
3. Dosage Adjustment for Cytotoxics in Hepatic Impairment January 2009; North London Cancer Network.
4. NCCP Classification Document for Systemic Anti-Cancer Therapy (SACT) Induced Nausea and Vomiting. V4 2022. Available at: https://www.hse.ie/eng/services/list/5/cancer/profinfo/chemoprotocols/nccp-classification-document-for-systemic-anti-cancer-therapy-sact-induced-nausea-and-vomiting.pdf
5. Lomustine BCCA Drug monograph Summary of Product Characteristics. Accessed May 2023 Available at http://www.bccancer.bc.ca/drug-database-site/Drug%20Index/Lomustine_monograph.pdf

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1	15/05/2023		Prof Patrick Morris

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