SACT PROTOCOL

The Clatterbridge Cancer Centre NHS Foundation Trust

Systemic Anti Cancer Therapy Protocol

Lomustine (CCNU)
CNS

PROTOCOL REF: MPHALOMCNS
(Version No. 2.2)

Approved for use in:

- Second line treatment for recurrect glioma following treatment with temozolomide
- PS 0-2

Dosage:

Drug	Dose	Route	Frequency
Lomustine	**40mg**	Oral	ONCE daily (at night) for FOUR days

Repeat every 4-6 weeks until disease progression or unacceptable tolerability

Administration:

- Lomustine is available as 40mg capsules
- Lomustine should be taken on an empty stomach with water at BEDTIME (to reduce nausea)

Emetogenic risk:

Mildly emetogenic.

Supportive treatments:

- Ondansetron 8mg – One hour before chemotherapy
- Cyclizine 50mg Tablets – 50mg up to three times a day when required

Extravasation risk:

Not applicable

Interactions:

Please refer to SPC for further information: Lomustine "medac" 40 mg - Summary of Product Characteristics (SmPC) - (emc) (medicines.org.uk)

Main toxicities:

Lomustine		
System Organ Class	Frequency	
Blood and lymphatic system disorders	Very common	Leukopenia
	Not known	Bone marrow failure, thrombocytopenia, anaemia
Nervous system disorders	Not known	Coordination abnormal, disorientation, lethargy, dysarthria
Respiratory, thoracic and mediastinal disorders	Not known	Pulmonary fibrosis, lung infiltration
Gastrointestinal disorders	Not known	Nausea, vomiting, stomatitis
Hepatobiliary disorders	Not known	Transaminases increased, blood bilirubin increased
Skin and subcutaneous tissue disorders	Not known	Alopecia
Renal and urinary disorders	Not known	Renal failure, azotaemia, renal atrophy, renal injury

Listed above are the most common toxicities caused by lomustine. For a comprehensive list of potential toxicities please refer to the SPC: Lomustine "medac" 40 mg - Summary of Product Characteristics (SmPC) - (emc) (medicines.org.uk)

Investigations and treatment plan:

	Pre	Cycle 1	Cycle 1 D15	Cycle 2	Cycle 3	Ongoing
Informed Consent	X					
Clinical Assessment	X	X	X	X	X	Alternate cycles
SACT Assessment (to include PS and toxicities)	X	X	X	X	X	Every cycle
FBC	X	X	X	X	X	Every cycle
U&E & LFTs & Magnesium	X	X	X	X	X	Every cycle
CrCl (Cockcroft and Gault)	X	X				Every cycle
MRI scan	X					As appropriate
Weight recorded	X	X	X	X	X	Every cycle
Blood glucose	X					Repeat if clinically indicated

Dose Modifications and Toxicity Management:

Haematological toxicity (if required):

Proceed on day 1 if-

ANC ≥ 1.5 x 10^9/L	Platelets ≥ 100 x 10^9/L

Delay 1 week on day 1 if-

ANC < 1.5 x 10^9/L	Platelets ≤ 99 x 10^9/L

Consider reducing course of Lomustine to THREE days if significant haematological toxicity.

Non-haematological toxicities:

In the event of non-haematological toxicities, consider reducing course of Lomustine to THREE days.

Dosing in renal and hepatic impairment:

Renal impairment:

Renal	Calculated using the Cockcroft-Gault equation

Crcl mL/min	Lomustine dose
>60	100%
30-60	Consider reducing course length
<30	Not recommended

Hepatic impairment:

No specific recommendations due to lack of information. Consider reducing course length if hepatic impairment. Hold lomustine if bilirubin > 25 µmol/L or AST > 5xULN until liver function returns to normal.

References:

1. The British National Formulary (BNF). Available at https://bnf.nice.org.uk
2. Lomustine 40mg Capsules Summary of Product Characteristics Available at: https://www.medicines.org.uk/emc/product/1401 Last updated Nov 2020.
3. Supplement to: Krens S D, Lassche, Jansman G F G A, et al. Dose recommendations for anticancer drugs in patients with renal or hepatic impairment. *Lancet Oncol* 2019; 20: e201–08.

Circulation/Dissemination

Date added into Q-Pulse	7th September 2023
Date document posted on the Intranet	N/A

Version History

Date	Version	Author name and designation	Summary of main changes
As of 5th April 2023	V 2.2	**Hugh O'Neill**	Updated to new protocol format Added 2 week bloods to treatment plan and investigations