Systemic Anti Cancer Therapy Protocol

Temozolomide

PROTOCOL REF: MPHATEMOZ
(Version No: 3.1)

The protocol has been temporarily amended – please see the Oral SACT Operational Changes during Covid-19. Amendments may include less frequent blood monitoring, telephone SACT assessments and longer durations of treatment being dispensed.

Approved for use in:

Newly diagnosed Glioma (after concurrent radiotherapy treatment – *see separate protocol for concurrent temozolomide*) in patients with WHO PS 0-1

Malignant glioma showing recurrence or progression after standard therapy

Drug	Dosage	Route	Frequency
Temozolomide	150mg/m^2	Oral	Once daily for 5 days every 28 days At Cycle 2, the dose is escalated to 200 mg/m^{2,} if tolerated

To be given for up to 12 cycles if adjuvant or until progression if recurrent disease.

Supportive treatments:

- Ondansetron 8mg daily for 5 days of chemotherapy (one hour before TMZ)
- Domperidone 10mg tablets, three times a day when required

Or

- Cyclizine 50mg tablets, three times a day when required

Administration:

Temozolomide is available as 5mg, 20mg, 100mg, 140mg, 180mg and 250mg capsules.

Temozolomide capsules are to be swallowed whole with a glass of water on an empty stomach, 1 hour before or after meals.

For patients unable to swallow capsules, please refer to the information sheet produced by Great Ormond Street Hospital for instructions on how to produce a mixture (available at https://www.gosh.nhs.uk/medical-information-0/medicines-information/temozolomide)

Extravasation risk:

Not applicable

Main Toxicities:

- Nausea and vomiting
- Constipation
- Diarrhoea
- Dyspepsia
- Mucositis
- Dyspnoea / Coughing
- Anorexia
- Fatigue
- Muscle weakness / pain
- Dry eyes
- Dry skin
- Rash / Pruritus
- Alopecia
- Headache
- Confusion
- Anxiety / depression
- Insomnia
- Peripheral neuropathy
- Impaired balance
- Tinnitus
- Hearing impairment
- Visual disturbances
- Urinary incontinence
- Rise in transaminases
- Anaemia
- Thrombocytopenia
- Neutropenia

Drug Interactions:

None reported.

Investigation and Treatment Plan:

	Pre	Cycle 1 Day 1	Cycle 1 day 15	Cycle 2	Cycle 3	Ongoing
Clinical Assessment	X	X	X	X	X	Every cycle
SACT Assessment		X		X	X	Every cycle
FBC	X	X	X	X	X	2-weekly for first cycle then every cycle
U&E & LFTs (including both AST and ALT)	X	X	X	X	X	2-weekly for first cycle then every cycle
MRI scan	X					Every 3 cycles
Informed Consent	X					
PS recorded	X	X	X	X	X	Every cycle
Toxicities documented	X	X	X	X	X	Every cycle
Weight recorded	X	X	X	X	X	Every cycle
Height recorded	X					

Dose Modifications and Toxicity Management:

Haematological toxicity

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 ≤ 1.4 x 10^9/L	Platelets ≤ 99\\ x 10^9/L

Dose modifications:

Consider dose reducing by one level in the event of haematological toxicity as per table below.

Dose level	TMZ dose (mg/m^2/day)	Remarks
–1	100	Reduction for prior toxicity
0	150	Dose during Cycle 1
1	200	Dose during Cycles 2 to 6 in absence of toxicity

Temozolomide should be discontinued if a dose reduction to 100mg/m^2 still results in unacceptable toxicity.

Non-haematological toxicities

Temozolomide should be deferred by one week if CTC Grade 3 non-haematological toxicity occurs.

In the event of non-haematological toxicities, consider reducing the dose of temozolomide by one level (as per table above).

If the same Grade 3 non-haematological toxicity occurs despite a dose reduction to 100mg/m^2, temozolomide should be discontinued.

Renal Impairment

No dose adjustment necessary

Hepatic toxicity

Review concurrent medication (particularly anticonvulsants) and consider their effect on liver function.

No dose adjustments necessary for mild to moderate hepatic impairment. No date available for patients with severe hepatic impairment. Stop temozolomide if there is a progressive rise in transaminases or rise in bilirubin

References:

1. Radiotherapy plus concomitant and adjuvant temozolomide for glioblastoma Stupp R et al NEJM 2005 352:987-996

2. Survival following adjuvant PCV or temozolomide for anaplastic astrocytoma Brandes AA et al Neuro-oncology 2006 253-260

3. Temozolomide chemotherapy alone versus radiotherapy alone for malignant astrocytoma in the elderly: the NOA-08 randomised, phase 3 trial Wick W et al Lancet 2012 13(7):707-715

4. Second line chemotherapy with temozolomide in recurrent oligodendroglioma after PCV chemotherapy: EORTC Brain Tumour Group phase II study 26972 Annals of Oncology 2003 14(4): 599-602