Systemic Anti Cancer Treatment Protocol

Procarbazine

PROTOCOL REF: MPHAPROCNS
(Version No: 1.0)

Approved for use in:

Third line treatment for recurrent glioma following treatment with temozolomide and lomustine

ECOG Performance Status 0 - 2

Dosage:

Drug	Dosage	Route	Frequency
Procarbazine	50mg twice daily	Oral	Days 1 – 14 every 28 days until disease progression

May be given for 10 days initially if caution is needed due to toxicities from prior treatments (then increase to 14 days if well tolerated).

Supportive treatments:

- Domperidone PO 10mg three times daily when required
  or
- Ondansetron PO 8mg twice daily when required

Extravasation risk:

Not applicable

Administration:

Administer without regard to meals twice daily for 14 days. Administer with food if GI upset occurs.

Drug interactions:

Procarbazine is a weak MAOI

Alcohol

Alcohol consumption may cause a disulfiram-like reaction in patients on procarbazine.

CNS depressants (eg, narcotics, analgesics, alcohol, antiemetics, benzodiazepines, sedatives, tranquilizers)

Concurrent use may potentiate CNS depression.

Digoxin: May result in a decrease in digoxin plasma levels, even several days after stopping chemotherapy.

High-tyramine foods (e.g. wine, yogurt, ripe cheese, bananas), OTC antihistamines, and sympathomimetics

Avoid known high-tyramine foods, OTC antihistamines, and sympathomimetics due to the risk of life-threatening hypertensive reaction.

Levodopa

Flushing and a significant rise in BP may result within 1 h of levodopa administration.

Tricyclic antidepressants

As procarbazine is a weak MAOI, there is a theoretical interaction with TCA's and manufacturer advises caution. Severe toxic and fatal reactions including excitability, fluctuations in BP, convulsions, and coma may occur.

Counselling points

Ensure appropriate contraception is discussed.

And provide dietary advice

Main Toxicities:

- Myelosuppression
- Fatigue
- Anaemia
- Flu-like symptoms (myalgia, chills, fever)
- Nausea and vomiting
- Diarrhoea or constipation
- Abdominal pain and melena
- Anorexia
- Mucositis
- Cough
- Flushing
- Hypotension, tachycardia and syncope
- Skin-reactions (rash, pruritus, photosensitivity)
- Alopecia
- Insomnia
- Headache
- Hallucinations
- Peripheral neuropathy
- Hepatic function impairment
- Azoospermia, irregular menstruation and infertility

Investigations:

	Pre	Cycle 1	Cycle 2	Cycle 3	Ongoing
Medical Assessment	X	X	X	X	Every cycle
Nursing Assessment		X	X	X	Every cycle
FBC	X	X	X	X	Every cycle
U&E & LFTs	X	X	X	X	Every cycle
MRI scan	X				Every 3 cycles
Informed Consent	X				
PS recorded	X	X	X	X	
Toxicities documented	X	X	X	X	
Weight recorded	X	X	X	X	Every cycle

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

Consider reducing course length to 10 days in event of haematological toxicity.

Non-haematological toxicities

Renal impairment – caution is advised for patients with renal dysfunction.

Procarbazine is contra-indicated if creatinine clearance less than 10 mL/min

Hepatic impairment – consider a dose reduction if bilirubin greater than 50 micromol/L. Procarbazine is contra-indicated if bilirubin is greater than 85micromol/L or AST greater than 180 IU/L

Consider reducing course length to 10 days in event of non-haematological toxicities.

References:

https://www.medicines.org.uk/emc/medicine/386

BC Cancer Agency Cancer Drug Manual (revised December 2011)