Protocol: **PCV (Procarbazine/CCNU/Vincristine)**

**Indication:** Brain Tumours – Palliative

**Schedule:**

<table>
<thead>
<tr>
<th>Drug</th>
<th>Dose</th>
<th>iv/infusion/oral</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Procarbazine</td>
<td>100mg/m² bd oral</td>
<td>Days 2-11</td>
<td></td>
</tr>
<tr>
<td>Lomustine</td>
<td>100mg/m² od oral</td>
<td>Day 1</td>
<td></td>
</tr>
<tr>
<td>Vincristine</td>
<td>1.5mg/m² (max 2mg) iv</td>
<td>Day 1</td>
<td></td>
</tr>
</tbody>
</table>

**Cycle frequency:** Every six weeks

**Total number of cycles:** 12

**Dose modifications:** Discuss with Consultant

**Administration and safety:**
- Anti-emetic group – High (Granisetron 1mg before Lomustine)
- Delay if neutrophils < 1.0 x 10⁹/L or platelets < 100 x 10⁹/L
- Round Procarbazine to the nearest 50mg
- Round Lomustine to the nearest 40mg

**Toxicities:** Myelosuppression and risk of neutropenic sepsis or haemorrhage, nausea & vomiting, alopecia, cardiotoxicity, amenorrhoea, peripheral neuropathy, constipation, encephalopathy, nephrotoxicity diarrhoea, carcinogenesis, infertility

**Symptomatic treatment of side effects:** Mouth care, encourage oral fluids

**Investigations**

**Pre-treatment:**
- History and Examination
- Performance score, weight
- FBC
- U & E’s, LFTs, creatinine, urate, creatinine clearance
- LDH
- ECG
- Staging investigations as per protocol

**Prior to each cycle:**
- Performance score, weight,
- FBC
- U & E’s, LFTs, creatinine
- LDH

**Mid Treatment:** After every two cycles

**Post Treatment:** Review in Medical Oncology Clinic 6 weeks after last cycle

Protocol: BCNU

Indications: Brain Tumours – Palliative

Schedule:

<table>
<thead>
<tr>
<th>Drug</th>
<th>Dose</th>
<th>Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carmustine</td>
<td>200mg/m²</td>
<td>iv/infusion/oral 500mls 5% dextrose/1hr Day 1</td>
</tr>
</tbody>
</table>

Cycle frequency: Every six weeks  
Total number of cycles: 4-6

Dose modification: Discuss with Consultant

Administration and safety:
- Anti-emetic group – High
- Delay if neutrophils < 1.5 x 10⁹/L or platelets < 100 x 10⁹/L

Toxicities: Myelosuppression and risk of neutropenic sepsis or haemorrhage, nausea & vomiting, alopecia, constipation, carcinogenesis, infertility, pneumonitis, pulmonary fibrosis, facial flushing, mucositis

Symptomatic treatment of side effects: Mouth care, encourage oral fluids

Investigations
Pre-treatment:
- History and Examination
- Performance score, weight
- FBC
- U & E’s, LFTs, creatinine, urate, creatinine clearance
- LDH
- ECG
- Staging investigations as per protocol

Prior to each cycle:
- Performance sore, weight
- FBC
- U & E’s, LFTs, creatinine
- LDH

Mid Treatment: After every two cycles

Post Treatment: Review in Medical Oncology Clinic 6 weeks after last cycle

Protocol: Temozolomide

Indication: Brain Tumour – Palliative, Adjuvant

Schedule:
Drug           Dose       iv/infusion/oral       q       Cycle frequency: Every four weeks       Total number of cycles: 6
Temozolomide   200mg/m²  od oral        Days 1-5

Dose modifications: Discuss with Consultant

Administration and safety:
- Anti-emetic group – Moderate
- Delay if neutrophils < 1.5 x 10⁹/L or platelets < 100 x 10⁹/L
- Administered in the fasting state
- Initial dose 150mg/m² in patient previously treated with chemotherapy
- Round Temozolomide dose to the nearest 5mg

Toxicities: Myelosuppression and risk of neutropenic sepsis or haemorrhage, nauseas & vomiting, diarrhoea, fatigue, anorexia, constipation, rash (rare), somnolence, carcinogenesis, infertility

Investigations
Pre-treatment
- History and Examination
- Performance score, weight
- U & E’s, LFTs, creatinine, urate, creatinine clearance
- LDH
- DCG
- Staging investigations as per protocol

Prior to each cycle:
- Performance score, weight
- FBC
- U & E’s, LFTs, creatinine
- LDH

Mid Treatment: After every two cycles

Post Treatment: Review in Medical Oncology Clinic 6 weeks after last cycle