**R-miniCHOP for diffuse large B-cell lymphoma (DLBCL)**

**Indication:**
Diffuse large B-cell lymphoma in patients > 80 years as outlined in the SELCN Lymphoma Guidelines

Intrathecal methotrexate prophylaxis to be given to patients with lymphomatous involvement in bone marrow, orbit, nasal/paranasal sinuses, testes and peripheral blood.

**Regimen details:**

<table>
<thead>
<tr>
<th>Drug</th>
<th>Dose</th>
<th>Route</th>
<th>Day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rituximab</td>
<td>375mg/m²</td>
<td>IV</td>
<td>Day 1</td>
</tr>
<tr>
<td>Cyclophosphamide</td>
<td>400mg/m²</td>
<td>IV</td>
<td>Day 1</td>
</tr>
<tr>
<td>Doxorubicin</td>
<td>25mg/m²</td>
<td>IV</td>
<td>Day 1</td>
</tr>
<tr>
<td>Vincristine</td>
<td>1mg</td>
<td>IV</td>
<td>Day 1</td>
</tr>
<tr>
<td>Prednisolone</td>
<td>40mg/m²</td>
<td>Orally</td>
<td>Days 1 to 5</td>
</tr>
</tbody>
</table>

**Administration:**

- **Rituximab:** IV infusion in 500ml sodium chloride. Rate as per rituximab administration guidance. Administer rituximab before CHOP.
- **Cyclophosphamide:** IV infusion in 100 - 250ml sodium chloride 0.9% over 30 minutes or as an IV bolus
- **Doxorubicin:** Slow IV bolus into the side arm of a free-running drip of sodium chloride 0.9%
- **Vincristine:** IV infusion in 50ml sodium chloride 0.9% over 5 minutes.
- **Prednisolone:** Orally, with or after food. Available as 5mg and 25mg tablets.

If intrathecal chemotherapy is required:

- **Methotrexate:** 12.5mg intrathecal Day 1

NB. It is recommended that intrathecal chemotherapy is administered on a separate day to IV chemotherapy. However, if local Trust Policy is that IV and intrathecal chemotherapy can be administered on the same day, follow local Policy and ensure that IV chemotherapy is given before the intrathecal dose.

**Premedication:**

- 30 minutes prior to rituximab:
  - Paracetamol 1000mg orally
  - Chlorphenamine 10mg IV
  - Prednisolone 40mg/m² orally (Day 1 of R-miniCHOP chemotherapy)

**Frequency:**

- 21 day cycle, for 6 cycles

**Extravasation:**

Vincristine and doxorubicin are vesicants and should be administered with appropriate precautions to prevent extravasation.

If there is any possibility that extravasation has occurred, contact a senior member of the medical team and follow local protocol for dealing with cytotoxic extravasation

**Anti-emetics:**

Moderate emetogenic potential (30% - 90%) e.g. ondansetron 8mg orally prior to chemotherapy and metoclopramide 20mg orally for 3 days after chemotherapy.
Supportive medication: Allopurinol 300mg od orally (100mg if renal impairment) for prevention of tumour lysis syndrome for first cycle only. PPI prophylaxis e.g. omeprazole 20mg od orally. Mouthcare as per local policy. GCSF prophylaxis is indicated, formulation and dosing as per local guideline.

Regular investigations: Baseline & regular
- FBC
- LFTs
- U&Es
Prior to each cycle

Dose Modifications

Haematological Toxicity

Prior to every cycle of R-miniCHOP:

<table>
<thead>
<tr>
<th>Neutrophils (x 10^9/L)</th>
<th>Platelets (x 10^9/L)</th>
<th>R-miniCHOP</th>
</tr>
</thead>
<tbody>
<tr>
<td>≥1.0 x 10^9/L</td>
<td>&amp;</td>
<td>≥100 x 10^9/L</td>
</tr>
<tr>
<td>&lt;1.0 x 10^9/L</td>
<td>or</td>
<td>&lt;100 x 10^9/L</td>
</tr>
</tbody>
</table>

Renal and Hepatic Impairment

Serum Creatinine > 150umol/L
Bilirubin > 30umol/L
Transaminases > 2.5 x upper limit of normal

Discuss with the Consultant. Clinical decision whether to proceed with treatment.

Toxicities: Myelosuppression, cardiotoxicity Neurotoxicity – monitor for constipation or peripheral sensory loss and discuss with Consultant before administering further cycles. Consider discontinuing vincristine.

Drug interactions: Concurrent administration of vincristine and itraconazole, voriconazole, posaconazole have been reported to cause increased severity of neuromuscular side effects and are therefore contra-indicated.
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Comments: Maximum cumulative lifetime dose doxorubicin = 450 - 550mg/m²
A baseline MUGA scan or echocardiogram should be performed where the patient is considered at risk of having impaired cardiac function e.g. significant cardiac history, hypertension, obese, smoker, elderly, previous exposure to anthracyclines, previous thoracic radiotherapy.
MUGA scan should be repeated if there is suspicion of cardiac toxicity at any point during treatment, or if cumulative anthracycline dose approaches maximum.

Maximum cumulative lifetime doses of anthracyclines are:
doxorubicin 450 – 550 mg/m²
daunorubicin 500 - 600mg/m²
epirubicin 950mg/m²
idarubicin 93mg/m²
mitoxantrone 160mg/m²
To calculate total exposure to anthracyclines, calculate for each drug the total dose received as a percentage of the lifetime dose for that drug. Add the percentage for each drug administered in the past. Maximum lifetime cumulative anthracycline dose is 100%.

Attenuated immunochemotherapy regimen (R-miniCHOP) in elderly patients older than 8-years with diffuse large B-cell lymphoma: a multicentre, single arm, phase 2 trial. Peyrade F. et al Lancet Oncol 2011;12:460-468