ABVD for Hodgkin’s Lymphoma

Indication: Hodgkin’s Lymphoma, first line

Regimen details:
- Doxorubicin 25mg/m² IV Day 1 and 15
- Bleomycin 10,000units/m² IV Day 1 and 15
- Vinblastine 6mg/m² IV Day 1 and 15
- Dacarbazine 375mg/m² IV Day 1 and 15

Administration:
- Doxorubicin: Slow IV bolus into the side arm of a free-running drip of sodium chloride 0.9%
- Vinblastine: IV infusion in 50ml sodium chloride 0.9% over 5 minutes.
- Bleomycin: IV infusion in 100ml sodium chloride 0.9% over 30 minutes
- Dacarbazine: IV infusion in 500ml sodium chloride 0.9% over 30 minutes

Premedication: None required

Frequency: Every 28 days, for up to 8 cycles. NB. For OPCS coding, ABVD is listed as a 14 day cycle (for 16 cycles).

Extravasation: Vinblastine, doxorubicin and dacarbazine 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: Very high emetogenic potential (> 90% incidence). Anti-emetics as per local policy.

Supportive medication:
- Allopurinol 300mg od orally (100mg if renal impairment) for prevention of tumour lysis syndrome for first cycle only.
- PCP prophylaxis with co-trimoxazole 960mg OD, three times a week, M, W, F

Regular investigations:
- Baseline & regular FBC Prior to each cycle and day 15
- LFTs Prior to each cycle
- U&Es Prior to each cycle
- Virology screen – Hep B & C, HIV prior to initiating treatment (Hep B includes HBsAg and HBcAb)

Dose Modifications

Haematological Toxicity

<table>
<thead>
<tr>
<th>Neutrophils (x 10⁹/L)</th>
<th>Platelets (x 10⁹/L)</th>
<th>ABVD</th>
</tr>
</thead>
<tbody>
<tr>
<td>≥ 0.5 x 10⁹/L &amp; ≥ 75 x 10⁹/L</td>
<td></td>
<td>100% dose</td>
</tr>
<tr>
<td>&lt; 0.5 x 10⁹/L or &lt; 75 x 10⁹/L</td>
<td></td>
<td>Delay treatment. Reassess FBC every 48 hours and treat when counts recovered.</td>
</tr>
</tbody>
</table>

Reason for Update: U&Es, LFTs required for day 1 only, FBC requirement for day 1 and day 15 to go ahead updated. Addition of virology screen. Emetogenic potential changed to very high.

Approved by Consultant: Paul Fields

Approved by Chair Haem TWG: Majid Kazmi

Date: 28 Feb 2013

Prepared by: Laura Cameron

Checked by (Network Pharmacist): Jacky Turner 28 Feb 2013
If delay occurs with any cycle of chemotherapy, consider GCSF support with subsequent cycles of treatment as follows:
e.g. Filgrastim 300 microgram sc daily, days 7 to 11 and days 21 to 25 of each cycle.

GCSF should not be given in the 72 hours preceding chemotherapy or within 24 hours after.

The decision to commence GCSF should be Consultant lead.

### Hepatic Impairment

<table>
<thead>
<tr>
<th>Bilirubin (µmol/l)</th>
<th>Modification</th>
</tr>
</thead>
<tbody>
<tr>
<td>35 – 50</td>
<td>50% doses of doxorubicin &amp; vinblastine (full dose bleomycin &amp; dacarbazine)</td>
</tr>
<tr>
<td>51 – 80</td>
<td>25% doses of doxorubicin &amp; vinblastine (full dose bleomycin &amp; dacarbazine)</td>
</tr>
<tr>
<td>&gt; 80</td>
<td>Discuss with Consultant</td>
</tr>
</tbody>
</table>

**Toxicities:**
All patients complaining of shortness of breath require a CXR prior to further administration of bleomycin. Discontinue if any signs on CXR of pulmonary infiltration/fibrosis, or if the transfer factor is < 50% of predicted value.

Occurrence of pulmonary fibrosis is higher in elderly patients and those receiving > 400,000 units total cumulative dose and in smokers and in patients with prior radiation therapy.

The maximum total cumulative dose is reduced based on age as follows:
- 80 years and older: 100,000 units
- 70 – 79 years: 150,000 units – 200,000 units
- 60 – 69 years: 200,000 units – 300,000 units

Gastro-intestinal toxicity – in the presence of severe (≥ grade 3) vinblastine related ileus, delay treatment until recovery and then give 75% dose vinblastine. If recurrent ≥ grade 3 ileus develops, discontinue vinblastine.

**Drug interactions:**
Concurrent administration of vinblastine and itraconazole, voriconazole, posaconazole have been reported to cause increased severity of neuromuscular side effects and are therefore contra-indicated.

**Comments:**
Maximum cumulative lifetime dose doxorubicin = 450 - 550mg/m²
A baseline MUGA scan 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.

**References:**
Dose modifications for hepatic impairment from British National Lymphoma Investigation, Protocol for a Randomised Phase II Study of the Stanford V Regimen, compared with ABVD for the Treatment of Advanced Hodgkin’s Disease.

G-CSF is not necessary to maintain over 99% dose-intensity with ABVD in the treatment of Hodgkin lymphoma: low toxicity and excellent outcomes in a 10 year analysis. Evens, A et al Brit J Haematol 2007; 137:545-552