Protocol Code

**LYBV**

Tumour Group

**Lymphoma**

Contact Physician

**Dr. Laurie H. Sehn**

**ELIGIBILITY:**

- Hodgkin lymphoma (HL) after primary treatment with ABVD chemotherapy and secondary treatment with ASCT

**TESTS:**

- Baseline, then as indicated:
- Required before first treatment: CBC & diff, platelets, bilirubin, ALT
- Required, but results do not have to be available to proceed with first treatment; results must be checked before proceeding with cycle 2: HBsAg, HBCoreAb
- Before day 1 of each treatment cycle: CBC & diff, platelets
- If clinically indicated: creatinine, ALT, bilirubin

**PREMEDICATIONS:**

None.

**SUPPORTIVE MEDICATIONS:**

If HBsAg or HBCoreAb positive, start lamiVUDine 100 mg/day PO for the duration of chemotherapy and for six months afterwards.

**TREATMENT:**

Treatment with brentuximab vedotin should be started approximately 6 weeks after ASCT.

<table>
<thead>
<tr>
<th>Drug</th>
<th>Dose</th>
<th>BC Cancer Administration Guideline</th>
</tr>
</thead>
<tbody>
<tr>
<td>brentuximab vedotin</td>
<td>1.8 mg/kg on Day 1*</td>
<td>IV in 100 mL NS over 30 minutes</td>
</tr>
</tbody>
</table>

Repeat every 21 day for 16 cycles.

*The dose for patients weighing greater than 100 kg should be calculated based on a weight of 100 kg.*
DOSE MODIFICATIONS:

1. Hematological:

<table>
<thead>
<tr>
<th>ANC (x10^9/L)</th>
<th>Platelets (x10^9/L)</th>
<th>Brentuximab</th>
</tr>
</thead>
<tbody>
<tr>
<td>greater than or equal to 0.6 and greater than or equal to 50</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>less than 0.6 or less than 50</td>
<td>Delay until recovery</td>
<td></td>
</tr>
</tbody>
</table>

2. Peripheral Neuropathy:

<table>
<thead>
<tr>
<th>Toxicity</th>
<th>Dose Modification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade 1</td>
<td>100%</td>
</tr>
<tr>
<td>Grade 2 or 3</td>
<td>Hold until neuropathy improves to grade 1 or baseline, then decrease dose to 1.2 mg/kg</td>
</tr>
<tr>
<td>Grade 4</td>
<td>Discontinue brentuximab vedotin</td>
</tr>
</tbody>
</table>

PRECAUTIONS:

1. **Neutropenia**: Fever or other evidence of infection must be assessed promptly and treated aggressively.
2. **Thrombocytopenia**: Support with platelet transfusion may be required.
3. **Hepatitis B Reactivation**: All lymphoma patients should be tested for both HBsAg and HBcoreAb. If either test is positive, such patients should be treated with lamivudine during chemotherapy and for six months afterwards. Such patients should also be monitored with frequent liver function tests and hepatitis B virus DNA at least every two months. If the hepatitis B virus DNA level rises during this monitoring, management should be reviewed with an appropriate specialist with experience managing hepatitis and consideration given to halting chemotherapy.
4. **Peripheral neuropathy**: Brentuximab treatment causes peripheral sensory neuropathy. Cases of peripheral motor neuropathy have also been reported. Brentuximab-induced peripheral neuropathy is cumulative. Monitor patients for symptoms of neuropathy, such as hypoesthesia, hyperesthesia, paresthesia, discomfort, a burning sensation, neuropathic pain or weakness and institute dose modifications accordingly.
5. **Infusion reactions**: Infusion-related reactions, including anaphylaxis, have occurred with brentuximab vedotin. Monitor patients during infusion. If an infusion reaction occurs, stop the infusion. See BC Cancer Hypersensitivity Guidelines.
6. **Tumor lysis syndrome**: Patients with rapidly proliferating tumor and high tumor burden are at risk of tumor lysis syndrome and these patients should be monitored closely.
7. **Progressive multifocal leukoencephalopathy (PML)**: JC virus infection resulting in PML and death has been reported in brentuximab-treated patients. Consider the diagnosis of PML in any patient presenting with new-onset signs and symptoms of central nervous system abnormalities. Hold brentuximab vedotin if PML is suspected.
8. **Stevens-Johnson syndrome**: Stevens-Johnson syndrome has been reported with brentuximab vedotin. If Stevens-Johnson syndrome occurs, discontinue brentuximab vedotin.

Call Dr. Laurie H. Sehn or tumor group delegate at (604) 877-6000 or 1-800-663-3333 with any problems or questions regarding this treatment program.

**REFERENCES:**