# BC Cancer Protocol Summary for Treatment of Cutaneous T-Cell Lymphoma (CTCL) with Brentuximab Vedotin

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| ***Protocol Code*** | *LYCTCLBV* |
| ***Tumour Group*** | *Lymphoma* |
| ***Contact Physician*** | *Dr. Kerry Savage* |

## ELIGIBILITY:

Note: New patients as of 1 Jan 2023 should start treatment with LYBRENTUX

Patient must have:

- Primary cutaneous anaplastic large cell lymphoma (pcALCL) treated with at least one prior systemic or radiation therapy, or
- CD30-expressing mycosis fungoides (MF) (≥ 10% CD30-positive malignant cells or lymphoid infiltrate) treated with at least one prior systemic therapy

Patients should have:

- Good performance status

## EXCLUSIONS:

- CD30-expressing Sézary syndrome, or
- Other subtypes of CD30-expressing cutaneous T-cell lymphoma

## 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:

If past brentuximab vedotin drug reactions:

- diphenhydramine 50 mg PO 30 minutes prior to brentuximab vedotin
- acetaminophen 650 mg to 975 mg PO 30 minutes prior to brentuximab vedotin

## SUPPORTIVE MEDICATIONS:

If HBsAg or HBcoreAb positive, start lamiVUDine 100 mg PO daily for the duration of chemotherapy and continue for one year from treatment completion for patients who are HBsAg positive and for six months for patients who are HBcoreAb positive.

**TREATMENT:**

| Drug | Dose | BC Cancer Administration Guideline |
|---|---|---|
| brentuximab vedotin | 1.8 mg/kg on Day 1* | IV in 100 mL NS over 30 minutes |

Repeat every 21 days. Maximum 16 cycles. Discontinue if definite progression at any time.

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

**DOSE MODIFICATIONS**:

1. **Hematological:**

| ANC ($x10^9$/L) | | Platelets ($x10^9$/L) | Brentuximab vedotin |
|---|---|---|---|
| greater than or equal to 0.6 | and | greater than or equal to 50 | 100% |
| less than 0.6 | or | less than 50 | Delay until recovery |

2. **Peripheral Neuropathy:**

| Toxicity | Dose Modification |
|---|---|
| Grade 1 | 100% |
| Grade 2 or 3 | Hold until neuropathy improves to grade 1 or baseline, then decrease dose to 1.2 mg/kg |
| Grade 4 | Discontinue brentuximab vedotin |

**PRECAUTIONS**:

1. **Neutropenia**: Fever or other evidence of infection must be assessed promptly and treated aggressively.
2. **Extravasation**: Brentuximab vedotin causes pain and may, rarely, cause tissue necrosis if extravasated. Refer to BC Cancer Extravasation Guidelines.
3. **Thrombocytopenia**: Support with platelet transfusion may be required.
4. **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 continue for one year from treatment completion for patients who are HBsAg positive and for six months for patients who are HBcoreAb positive. 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.

5. **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.
6. **Infusion reactions:** Infusion-related reactions, including anaphylaxis, have occurred with brentuximab. Monitor patients during infusion. If an infusion reaction occurs, stop the infusion. See BC Cancer Hypersensitivity Guidelines.
7. **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.
8. **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 if PML is suspected.
9. **Stevens-Johnson syndrome:** Stevens-Johnson syndrome has been reported with brentuximab. If Stevens-Johnson syndrome occurs, discontinue brentuximab vedotin
10. **Acute pancreatitis** including fatal outcomes, has been reported in patients who have received brentuximab vedotin. Consider the diagnosis of acute pancreatitis for patients who present with new or worsening abdominal pain. Hold brentuximab vedotin if suspected pancreatitis and discontinue if confirmed.

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

## REFERENCES:


1. Prince HM, Kim YH, Horwitz SM, et al. Brentuximab vedotin or physician's choice in CD30-positive cutaneous T-cell lymphoma (ALCANZA): an international, open-label, randomised, phase 3, multicentre trial. Lancet 2017;390(10094):555-566. doi:10.1016/S0140-6736(17)31266-7