Canterbury
District Health Board
Te Poari Hauora ō Waitaha
Haematology

**Non Hodgkin Lymphoma - Burkitt-type** or
**Acute Lymphoblastic Leukaemia**
# (R) - Hyper-CVAD
***Alternates with (R) – Methotrexate Cytarabine***

| | |
|---|---|
| **Height** | cm |
| **Weight** | kg |
| **BSA** | $m^2$ |

| | |
|---|---|
| Cycle length: | 21 days |
| Cycle no: | 1 3 5 7 |
| Destination: | BMTU |

| **CBC** | **Day 1** | **Limits** |
|---|---|---|
| Date | | |
| WCC | | ≥ 3 x $10^9$/L |
| Plts | | ≥ 60 x $10^9$/L |

**Allergies/Hypersensitivities:**

**Antiemetics**
Domperidone 10 mg PO QID PRN
± Cyclizine 25 mg – 50 mg PO/IV TDS PRN

| **Agent** | **Round** |
|---|---|
| Rituximab | 50mg |
| Cyclophosphamide | 20 mg |
| Vincristine | 0.2 mg |
| Doxorubicin | 5 mg |

**DOSE MODIFIED:NO YES**

References: 1.Thomas et al Cancer, 2006 106(7) 1569-1580 (Burkitt - type)
2.Kantarjian, H.D. et al Cancer, 2004 101(12) 2788-2801 (ALL)

**Ensure Hep B serology is performed before rituximab treatment** ☐

| Day | Date | Time | Agent | Dose | | Route | Instructions | Doctor | Nurse | Check | Start | Stop |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | | | *#**Methylprednisolone** | 100 | mg | IV | In 100 mL sodium chloride 0.9% over 15 minutes | | | | | |
| | | | #Paracetamol | 1000 | mg | PO | 30-60 minutes prior to rituximab | | | | | |
| | | | #Loratadine | 20 | mg | PO | 30-60 minutes prior to rituximab | | | | | |
| | | | #**Rituximab 375 mg/$m^2$** ***(cycles 1 and 3 only)*** | | mg | IV | ☐ **Standard infusion:** added to 500 mL Sodium Chloride 0.9%<br>☐ **Rapid infusion:** added to 500 mL Sodium Chloride 0.9% | | | | | |

- * If no reaction to the first dose of rituximab, methylprednisolone may be omitted at the prescribers discretion
- # Rituximab is given in cycles 1 and 3 only. See recording chart pages 4 and 5.
- Dexamethasone 40 mg daily on days 1-4 and 11-14 is part of protocol and to be given every cycle.
- Encourage patients to drink at least 3 litres of fluid per day, and to void frequently when receiving cyclophosphamide.
- Give IV hydration and appropriate tumour lysis prophylaxis based on risk stratification during cycle 1
- CNS prophylaxis is given with each cycle up to a total of 16 treatments. If CNS disease, IT therapy is given twice weekly until CSF cell count normalised and cytology negative.

**Consultant:**
**NZMC Reg. No:**

**Special authority:**
**Rituximab**
**Filgrastim**

Authorised by: Peter Ganly Pharmacist: C Innes and T Vincent Issued: January 2020
Review due: January 2023

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| Day | Date | Time | Agent | Dose | | Route | Instructions | Dr | Nurse | Check | Start | Stop |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | **Methotrexate 12 mg IT** | | | IT | See separate intrathecal chemotherapy medication chart (C160016) | | | | | |
| 1 | | 0800 | **Dexamethasone** | 40 | mg | PO | | | | | | |
| | | T = - 1 h | Ondansetron | 8 | mg | PO | 30-60 minutes prior to chemotherapy | | | | | |
| | | T = 0 h | **Cyclophosphamide 300 mg/m²** | | mg | IV | In 100 mL sodium chloride 0.9% over 2 hours | | | | | |
| | | T = +11 h | Ondansetron | 8 | mg | PO | 30-60 minutes prior to chemotherapy | | | | | |
| | | T = +12 h | **Cyclophosphamide 300 mg/m²** | | mg | IV | In 100 mL sodium chloride 0.9% over 2 hours | | | | | |
| 2 | | 0800 | **Dexamethasone** | 40 | mg | PO | | | | | | |
| | | T = - 1 h | Ondansetron | 8 | mg | PO | 30-60 minutes prior to chemotherapy | | | | | |
| | | T = 0 h | **Cyclophosphamide 300 mg/m²** | | mg | IV | In 100 mL sodium chloride 0.9% over 2 hours | | | | | |
| | | T = +11 h | Ondansetron | 8 | mg | PO | 30-60 minutes prior to chemotherapy | | | | | |
| | | T = +12 h | **Cyclophosphamide 300 mg/m²** | | mg | IV | In 100 mL sodium chloride 0.9% over 2 hours | | | | | |
| 3 | | 0800 | **Dexamethasone** | 40 | mg | PO | | | | | | |
| | | T = - 1 h | Ondansetron | 8 | mg | PO | 30-60 minutes prior to chemotherapy | | | | | |
| | | T = 0 h | **Cyclophosphamide 300 mg/m²** | | mg | IV | In 100 mL sodium chloride 0.9% over 2 hours | | | | | |
| | | T = +11 h | Ondansetron | 8 | mg | PO | 30-60 minutes prior to chemotherapy | | | | | |
| | | T = +12 h | **Cyclophosphamide 300 mg/m²** | | mg | IV | In 100 mL sodium chloride 0.9% over 2 hours | | | | | |

- Encourage patients to drink at least 3 litres of fluid per day, and to void frequently when receiving cyclophosphamide.
- Dexamethasone 40 mg daily on days 1-4 and 11-14 is part of protocol and to be given every cycle.

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| Day | Date | Time | Agent | Dose | | Route | Instructions | Doctor | Nurse | Check | Start | Stop |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4 | | 0800 | **Dexamethasone** | 40 | mg | PO | | | | | | |
| | | | **Vincristine** | **2** | mg | IV | In 50 mL sodium chloride 0.9% free run over 10 minutes | | | | | |
| | | | **Doxorubicin 50 mg/m²** | | mg | IV | In 150 mL Sodium Chloride 0.9% over 15 mins | | | | | |
| 5 | | | **Filgrastim 5 mcg/kg** *(round to syringe size 300 mcg or 480 mcg)* | | mcg | subcut | Once daily subcutaneously, commence at least 24 hours post chemotherapy. *Prescribe on an outpatient prescription. Special authority required.* | | | | | |
| 8 | | | **Cytarabine 100 mg IT** | | | | See separate intrathecal chemotherapy medication chart (C160016) | | | | | |
| 11-14 | | | **Dexamethasone** daily for 4 days | 40 | mg | PO | Give 30-60 minutes prior to rituximab if cycle 1 or 3. Prescribe days 11-14 on outpatient prescription | | | | | |
| 11 | | | #Paracetamol | 1000 | mg | PO | 30-60 minutes prior to rituximab | | | | | |
| | | | #Loratadine | 20 | mg | PO | 30-60 minutes prior to rituximab | | | | | |
| | | | **#Rituximab 375 mg/m²** ***(cycles 1 and 3 only)*** | | mg | IV | ☐ **Standard infusion:** added to 500 mL Sodium Chloride 0.9% ☐ **Rapid infusion:** added to 500 mL Sodium Chloride 0.9% | | | | | |
| | | | **Vincristine** | **2** | mg | IV | In 50 mL sodium chloride 0.9% free run over 10 minutes | | | | | |

- # Rituximab is given in cycles 1 and 3 only. See recording chart pages 4 and 5.
- Dexamethasone 40 mg daily on days 1-4 and 11-14 is part of protocol and to be given every cycle.

**Commence next cycle on day 21 or when WCC is greater than or equal to 3 x $10^9$/L and platelets are greater than 60 x $10^9$/L, whichever is earlier (at least 14 days apart)**

<table>
<tr><td colspan="2">Rituximab 375 mg/m² administration instructions</td></tr>
<tr><td>Date:</td><td>Attach patient label</td></tr>
<tr><td>Standard infusion:</td><td>Commence infusion at 50 mg/hr for the first hour. If no side effects, increase the infusion rate in 50 mg increments every 30 minutes to a maximum rate of 400 mg/hr. Remember that the IV line will have been primed with sodium chloride therefore rituximab will not be infused immediately.<br>To calculate 50mg in _____mL<br>Total volume of bag / Total dose in bag X 50 mg = _______mL</td></tr>
<tr><td>Rapid infusion:</td><td>If no previous toxicities, give 20% of the dose over 30 minutes and the remaining 80% over the following 60 minutes</td></tr>
<tr><td>If any adverse effects noted:</td><td>Discontinue infusion, evaluate severity of symptoms, and treat accordingly. If reactions settle, recommence at HALF the previous rate. Consider hydrocortisone 100 mg IV if required, plus chlorphenamine and paracetamol (depending on time interval).</td></tr>
<tr><td colspan="2">Take vital observations as for blood products or as clinically indicated during infusion.<br><br>Following infusion: Observe for 1 hour following first infusion for delayed reaction. If patient has reacted to first infusion they will need to be observed for 1 hour following subsequent infusions also.</td></tr>
</table>

Note: •Monitor patients with high tumour burden for infusion related reactions and tumour lysis syndrome.
•Ensure adequate hydration and consider addition of allopurinol for 1 – 3 courses.

## PRN medications for hypersensitivity reactions

| Date | Time | Medication | Dose | Route | Doctor | Nurse | Check |
|---|---|---|---|---|---|---|---|
| | | Hydrocortisone | 100 mg | Slow IV bolus | | | |
| | | | | | | | |
| | | Paracetamol | 1000 mg | PO (If more than 4 hours since last dose) | | | |
| | | | | | | | |
| | | Chlorphenamine | 10 mg | Slow IV bolus | | | |
| | | | | | | | |

## PRN antiemetics

| Date | Medication | Dose | Directions | Doctor | Nurse sign | | | |
|---|---|---|---|---|---|---|---|---|
| | Domperidone | 10 mg | PO QID PRN | | | | | |
| | | | | | | | | |
| | Cyclizine | 50 mg | PO/IV Q8H PRN | | | | | |
| | | | | | | | | |
| | Lorazepam | 0.5-1 mg | PO BD PRN | | | | | |
| | | | | | | | | |

| Rituximab 375 mg/m² administration instructions | |
|---|---|
| **Date:** | ***Attach patient label*** |
| **Standard infusion:** | Commence infusion at 50 mg/hr for the first hour. If no side effects, increase the infusion rate in 50 mg increments every 30 minutes to a maximum rate of 400 mg/hr. Remember that the IV line will have been primed with sodium chloride therefore rituximab will not be infused immediately.<br>To calculate 50mg in ______mL<br>Total volume of bag / Total dose in bag X 50 mg = _______mL |
| **Rapid infusion:** | If no previous toxicities, give 20% of the dose over 30 minutes and the remaining 80% over the following 60 minutes |
| **If any adverse effects noted:** | Discontinue infusion, evaluate severity of symptoms, and treat accordingly. If reactions settle, recommence at HALF the previous rate. Consider hydrocortisone 100 mg IV if required, plus chlorphenamine and paracetamol (depending on time interval). |
| **Take vital observations as for blood products or as clinically indicated *during infusion*.**<br><br>**Following infusion:** Observe for 1 hour following first infusion for delayed reaction. If patient has reacted to first infusion they will need to be observed for 1 hour following subsequent infusions also. | |

Note: •Monitor patients with high tumour burden for infusion related reactions and tumour lysis syndrome.
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## PRN antiemetics

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| | | | | | | | | |
| | Cyclizine | 50 mg | PO/IV Q8H PRN | | | | | |
| | | | | | | | | |
| | Lorazepam | 0.5-1 mg | PO BD PRN | | | | | |
| | | | | | | | | |