Protocol: **Fludarabine**

Indications: “Low Grade” non-Hodgkin’s Lymphoma and CLL

Schedule:

<table>
<thead>
<tr>
<th>Drug</th>
<th>Dose</th>
<th>iv/infusion/oral</th>
<th>q</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fludarabine</td>
<td>25mg/m²</td>
<td>oral</td>
<td>Days 1-5</td>
</tr>
</tbody>
</table>

Cycle frequency: Every four weeks  
Total number of cycles: 6-8

Dose modifications: Discuss with Consultant

Administration and safety:
- Anti-emetic group – Low
- Delay if neutrophils < 1.0 x 10⁹/L or platelets < 100 x 10⁹/L
- Prophylactic co-trimoxazole and valaciclovir
- Round Fludarabine to the nearest 10mg

Toxicities: Myelosuppression and risk of neutropenic sepsis or haemorrhage, nausea, mucositis, amenorrhoea, pneumonitis, carcinogenesis, infertility, hair thinning, fluid retention

Symptomatic treatment of side effects: Mouth care

Investigations

Pre-treatment
- History and Examination
- Performance score, weight
- FBC
- U & E’s, LFTs, creatinine, urate
- LDH
- ECG
- CXR
- Staging investigations as per protocol

Prior to each cycle:
- Performance score, weight
- FBC
- U & E’s, LFTs, creatinine
- LDH
- CXR

Mid Treatment: After every two cycles

Post Treatment: Review in the Medical Oncology Clinic 4 weeks after last cycle

Protocol: **CVP**

**Indication:** “Low Grade” non-Hodgkin’s lymphoma and CLL

**Schedule:**

<table>
<thead>
<tr>
<th>Drug</th>
<th>Dose</th>
<th>iv/infusion/oral</th>
<th>q</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cyclophosphamide</td>
<td>750mg/m²</td>
<td>iv</td>
<td>Day 1</td>
</tr>
<tr>
<td>Vincristine</td>
<td>1.4mg/m² (max 2mg)</td>
<td>iv</td>
<td>Day 1</td>
</tr>
<tr>
<td>Prednisolone</td>
<td>100mg</td>
<td>oral</td>
<td>Days 1-5</td>
</tr>
</tbody>
</table>

Cycle frequency: Every three weeks  
Total number of cycles: 6

**Dose modifications:** Discuss with Consultant

**Administration and safety:**
- Anti-emetic group – Low
- Delay if neutrophils < $1.0 \times 10^9$/L or platelets < $100 \times 10^9$/L
- Do not cap BSA

**Toxicities:** Myelosuppression and risk of neutropenic sepsis or haemorrhage, nausea & vomiting, mucositis, alopecia, amenorrhoea, peripheral neuropathy, constipation, haemorrhagic cystitis, nephrotoxicity, diarrhoea, carcinogenesis, infertility

**Symptomatic treatment of side effects:** Mouth care, encourage oral fluids

**Investigations**

**Pre-treatment:**
- History and Examination
- Performance score, weight
- FBC
- U & E’s, LFTs, creatinine, urate, creatinine clearance
- LDH
- ECG
- Staging investigations as per protocol

**Prior to each cycle:**
- Performance score, weight
- FBC
- U & E’s, LFTs, creatinine
- LDH

**Mid Treatment:** After every two cycles

**Post Treatment:** Review in Medical Oncology Clinic 4 weeks after last cycle

Protocol: **CVP-R**

**Indication:** “Low Grade” non-Hodgkin’s lymphoma and CLL

**Schedule:**

<table>
<thead>
<tr>
<th>Drug</th>
<th>Dose</th>
<th>Route</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cyclophosphamide</td>
<td>750mg/m²</td>
<td>iv/infusion/oral</td>
<td>Day 1</td>
</tr>
<tr>
<td>Vincristine</td>
<td>1.4mg/m² (max 2mg)</td>
<td>iv</td>
<td>Day 1</td>
</tr>
<tr>
<td>Prednisolone</td>
<td>100mg</td>
<td>oral</td>
<td>Days 1-5</td>
</tr>
<tr>
<td>Rituximab</td>
<td>375mg/m²</td>
<td>500mls N. Saline</td>
<td>as per datasheet</td>
</tr>
</tbody>
</table>

**Cycle frequency:** Every three weeks  
**Total number of cycles:** 6-8

**Dose modifications:** Discuss with Consultant

**Administration and safety:**
- Anti-emetic group – Low
- Delay if neutrophils < 1.0 x 10⁹/L or platelets < 100 x 10⁹/L
- Do not cap BSA
- Pre-med Rituximab – paracetamol, chlorpheniramine, dexamethasone
- Rituximab Rapid Infusion guidelines apply

**Toxicities:** Myelosuppression and risk of neutropenic sepsis or haemorrhage, nausea & vomiting, mucositis, alopecia, amenorrhoea, peripheral neuropathy, constipation, haemorrhagic cystitis, nephrotoxicity, diarrhoea, carcinogenesis, infertility, sensitivity reaction to rituximab

**Symptomatic treatment of side effects:** Mouth care, encourage oral fluids

**Investigations**

**Pre-treatment:**
- History and Examination
- Performance score, weight
- FBC
- U & E’s, LFTs, creatinine, urate, creatinine clearance
- LDH
- ECG
- Staging investigations as per protocol

**Prior to each cycle:**
- Performance score, weight
- FBC
- U & E’s, LFTs, creatinine
- LDH

**Mid Treatment:** After every two cycles

**Post Treatment:** Review in Medical Oncology Clinic 4 weeks after last cycle

Protocol: **FMD**

Indications: “Low Grade” non-Hodgkin’s Lymphoma

Schedule:

<table>
<thead>
<tr>
<th>Drug</th>
<th>Dose</th>
<th>iv/infusion/oral</th>
<th>q</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fludarabine</td>
<td>25mg/m²</td>
<td>iv/30mins</td>
<td>Days 1-3</td>
</tr>
<tr>
<td>Mitozantrone</td>
<td>10mg/m²</td>
<td>100ml N. Saline/10mins</td>
<td>Day 1</td>
</tr>
<tr>
<td>Dexamethasone</td>
<td>20mg</td>
<td>oral</td>
<td>Days 1-5</td>
</tr>
</tbody>
</table>

Cycle frequency: Every four weeks  Total number of cycles: 6

Dose modifications: Discuss with Consultant

Administration and safety:
- Anti-emetic group – High on Day 1
- Delay if neutrophils - < 1.0 x 10⁹/L or platelets < 100 x 10⁹/L
- Ensure adequate renal function
- Prophylactic co-trimoxazole and valaciclovir

Toxicities: Myelosuppression and risk of neutropenic sepsis or haemorrhage, nausea & vomiting, mucositis, alopecia, cardiotoxicity, amenorrhoea, peripheral neuropathy, constipation, encephalopathy, haemorrhagic cystitis, nephrotoxicity, diarrhoea, carcinogenesis, infertility

Symptomatic treatment of side effects: Mouth care, encourage oral fluids

Investigations

Pre-treatment:
- History and Examination
- Performance score, weight
- FBC
- U & E’s, LFTs, creatinine, urate, creatinine clearance
- LDH
- ECG
- Staging investigations as per protocol

Prior to each cycle:
- Performance score, weight
- FBC
- U & E’s, LFTs, creatinine
- LDH

Mid Treatment: After three cycles

Post Treatment: Review in Medical Oncology Clinic 4 weeks after last cycle

Protocol: **CHOP**

**Indications:** Non-Hodgkin’s Lymphoma

**Schedule:**

<table>
<thead>
<tr>
<th>Drug</th>
<th>Dose</th>
<th>in/infusion/oral</th>
<th>q</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cyclophosphamide</td>
<td>750mg/m²</td>
<td>iv</td>
<td>Day 1</td>
</tr>
<tr>
<td>Doxorubicin</td>
<td>50mg/m²</td>
<td>iv</td>
<td>Day 1</td>
</tr>
<tr>
<td>Vincristine</td>
<td>1.4mg/m² (max 2mg)</td>
<td>iv</td>
<td>Day 1</td>
</tr>
<tr>
<td>Prednisolone</td>
<td>100mg</td>
<td>oral</td>
<td>Days 2-5</td>
</tr>
</tbody>
</table>

Cycle frequency: Every two to three weeks  Total number of cycles: 6-8

Dose modifications: Discuss with Consultant

**Administration and safety:**
- Anti-emetic group – Moderately high
- Delay if neutrophils <1.0 x 10⁹/L or platelets < 100 x 10⁹/L
- Ensure adequate renal function and liver function
- Do not cap BSA

**Toxicities:** Myelosuppression and risk of neutropenic sepsis or haemorrhage, nausea & vomiting, mucositis, alopecia, cardiotoxicity, amenorrhoea, peripheral neuropathy, constipation, haemorrhagic cystitis, diarrhoea, carcinogenesis, infertility

Symptomatic treatment of side effects: Mouth care, encourage oral fluids

**Investigations**

**Pre-treatment:**
- History and Examination
- Performance score, weight
- FBC
- U & E’s, LFTs, creatinine, urate, creatinine clearance
- LDH
- ECG
- Staging investigations as per protocol

**Prior to each cycle:**
- Performance score, weight
- FBC
- U & E’s, LFTs, creatinine
- LDH

**Mid Treatment:** After every two cycles

**Post Treatment:** Review in Medical Oncology Clinic 4 weeks after last cycle

Protocol: **CHOP-R**

Indications: Non-Hodgkin’s Lymphoma (B-cell)

Schedule:

<table>
<thead>
<tr>
<th>Drug</th>
<th>Dose</th>
<th>iv/infusion/oral</th>
<th>q</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cyclophosphamide</td>
<td>750mg/m²</td>
<td>iv</td>
<td>Day 1</td>
</tr>
<tr>
<td>Doxorubicin</td>
<td>50mg/m²</td>
<td>iv</td>
<td>Day 1</td>
</tr>
<tr>
<td>Vincristine</td>
<td>1.4mg/m²</td>
<td>iv</td>
<td>Day 1</td>
</tr>
<tr>
<td>(max 2mg)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prednisolone</td>
<td>100mg</td>
<td>oral</td>
<td>Days 2-5</td>
</tr>
<tr>
<td>Rituximab</td>
<td>375mg/m²</td>
<td>500mls N. Saline</td>
<td>Day 1</td>
</tr>
</tbody>
</table>

as per datasheet

Cycle frequency: Every two to three weeks  Total number of cycles: 6-8

Dose modifications: Discuss with Consultant

Administration and safety:
- Anti-emetic group – Moderately High
- Delay if neutrophils <1.0 x 10⁹/L or platelets < 100 x 10⁹/L
- Ensure adequate renal function and liver function
- Rituximab should be given pre-CHOP on cycle 1, subsequent cycles the order does not matter
- Pre-med Rituximab – paracetamol, chlorpheniramine, dexamethasone
- Rituximab Rapid Infusion guidelines apply
- Do not cap BSA

Toxicities: Myelosuppression and risk of neutropenic sepsis or haemorrhage, nausea & vomiting, mucositis, alopecia, cardiotoxicity, amenorrhoea, peripheral neuropathy, constipation, haemorrhagic cystitis, diarrhoea, carcinogenesis, infertility, sensitivity reaction to rituximab

Symptomatic treatment of side effects: Mouth care encourage oral fluids

Investigations

Pre-treatment:
- History and Examination
- Performance score, weight
- FBC
- U & E’s, LFTs, creatinine, urate, creatinine clearance
- LDH
- ECG
- Staging investigations as per protocol

Prior to each cycle:
- Performance score, weight
- FBC
- U & E’s, LFTs, creatinine
- LDH

Mid Treatment: After every two cycles

Post Treatment: Review in Medical Oncology Clinic 4 weeks after last cycle

Protocol: **CHOP-R (with Intrathecal Methotrexate)**

Indications: Non-Hodgkin’s Lymphoma

**Schedule:**

<table>
<thead>
<tr>
<th>Drug</th>
<th>Dose</th>
<th>Route</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cyclophosphamide</td>
<td>750mg/m²</td>
<td>iv/infusion/oral</td>
<td>Day 1</td>
</tr>
<tr>
<td>Doxorubicin</td>
<td>50mg/m²</td>
<td>iv</td>
<td>Day 1</td>
</tr>
<tr>
<td>Vincristine</td>
<td>1.4mg/m² (max 2mg)</td>
<td>iv</td>
<td>Day 1</td>
</tr>
<tr>
<td>Prednisolone</td>
<td>100mg</td>
<td>oral</td>
<td>Days 2-5</td>
</tr>
<tr>
<td>Rituximab</td>
<td>375mg/m²</td>
<td>500mls N. Saline</td>
<td>Day 1</td>
</tr>
<tr>
<td>Methotrexate</td>
<td>12.5mg</td>
<td>I/T</td>
<td>Day 1</td>
</tr>
</tbody>
</table>

Cycle frequency: Every two to three weeks
Total number of cycles: 6-8

Dose modifications: Discuss with Consultant

Administration and safety:
- Anti-emetic group – Moderately High
- Delay if neutrophils <1.0 x 10⁹/L or platelets < 100 x 10⁹/L
- Ensure adequate renal function and liver function
- Intrathecal methotrexate to be given in accordance with local policy
- Rituximab should be given pre-CHOP on cycle 1, subsequent cycles the order does not matter
- Pre-med Rituximab – paracetamol, chlorpheniramine, dexamethasone
- Rituximab Rapid Infusion guidelines apply
- Do not cap BSA

Toxicities: Myelosuppression and risk of neutropenic sepsis or haemorrhage, nausea & vomiting, mucositis, alopecia, cardiotoxicity, amenorrhoea, peripheral neuropathy, constipation, haemorrhagic cystitis, diarrhoea, carcinogenesis, infertility, sensitivity reaction to rituximab, post-lumbar puncture headache, meningeal irritation

Symptomatic treatment of side effects: Mouth care encourage oral fluids

Investigations

**Pre-treatment:**
- History and Examination
- Performance score, weight
- FBC
- U & E’s, LFTs, creatinine, urate, creatinine clearance
- LDH
- ECG
- Staging investigations as per protocol

**Prior to each cycle:**
- Performance score, weight
- FBC
- U & E’s, LFTs, creatinine
- LDH

**Post Treatment:** Review in Medical Oncology Clinic 4 weeks after last cycle

Protocol: PIE (Cisplatin/Ifosfamide/Etoposide)

Indications: Lymphoma - Recurrent

Schedule:

<table>
<thead>
<tr>
<th>Drug</th>
<th>Dose</th>
<th>iv/infusion/oral</th>
<th>q</th>
</tr>
</thead>
<tbody>
<tr>
<td>Etoposide</td>
<td>133mg/m²</td>
<td>500mls N. Saline/2hr</td>
<td>Days 1-3</td>
</tr>
<tr>
<td>Ifosfamide</td>
<td>2,000mg/m²</td>
<td>1L N. Saline/4 hrs</td>
<td>Days 1-3</td>
</tr>
<tr>
<td>Cisplatin</td>
<td>33mg/m²</td>
<td>1L N. Saline/2hrs</td>
<td>Days 1-3</td>
</tr>
</tbody>
</table>

Cycle frequency: Every three weeks  Total number of cycles: 4

Dose modifications: Discuss with Consultant

Administration and safety:
- Anti-emetic group – High
- Delay if neutrophils < 1.0 x 10⁹/L or platelets < 100 x 10⁹/L
- Ensure adequate renal function
- Pre & post hydration, mannitol, potassium & magnesium
- Mesna dose guidelines

Toxicities: Myelosuppression and risk of neutropenic sepsis or haemorrhage, nausea & vomiting, mucositis, alopecia, cardiotoxicity, peripheral neuropathy, nephrotoxicity, ototoxicity, constipation, haemorrhagic cystitis, diarrhoea, carcinogenesis, infertility

Symptomatic treatment of side effects: Mouth care, encourage oral fluids

Investigations

Pre-treatment:
- History and Examination
- Performance score, weight
- FBC
- U & E’s, LFTs, Mg²⁺, Ca²⁺, creatinine, urate, creatinine clearance
- LDH
- ECG
- Staging investigations as per protocol

Prior to each cycle:
- Performance score, weight
- FBC
- U & E’s, LFTs, Mg²⁺, Ca²⁺, creatinine
- LDH

Mid Treatment: After each cycle

Post Treatment: Review in Medical Oncology Clinic 4 weeks after last cycle

Reference: Gupta, 1996
Protocol: **R-ICE (Carboplatin/Ifosfamide/Etoposide)**

**Indications:** Lymphoma - Recurrent

**Schedule:**

<table>
<thead>
<tr>
<th>Drug</th>
<th>Dose</th>
<th>Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rituximab</td>
<td>375mg/m²</td>
<td>iv/infusion/oral q Day 1</td>
</tr>
<tr>
<td>Etoposide</td>
<td>100mg/m²</td>
<td>500mls N. Saline/2hr Days 1-3</td>
</tr>
<tr>
<td>Ifosfamide</td>
<td>5,000mg/m²</td>
<td>1L N. Saline/24 hrs Day 2</td>
</tr>
<tr>
<td>Carboplatin</td>
<td>AUC 5</td>
<td>500mls 5% dextrose/1hrs Day 2</td>
</tr>
</tbody>
</table>

**Cycle frequency:** Every 2 weeks  
**Total number of cycles:** 3

**Dose modifications:** Discuss with Consultant

**Administration and safety:**
- Anti-emetic group – High
- Delay if neutrophils < 1.0 x 10⁹/L or platelets < 100 x 10⁹/L
- Ensure adequate renal function, hydration
- Mesna dose guidelines apply
- Prophylactic pegylated G-CSF on day 5
- Pre-med Rituximab – paracetamol, chlorpheniramine, dexamethasone
- Rituximab Rapid Infusion guidelines apply

**Toxicities:** Myelosuppression and risk of neutropenic sepsis or haemorrhage, nausea & vomiting, mucositis, alopecia, cardiotoxicity, peripheral neuropathy, nephrotoxicity, ototoxicity, constipation, haemorrhagic cystitis, diarrhoea, carcinogenesis, infertility

**Symptomatic treatment of side effects:** Mouth care, encourage oral fluids

**Investigations**

**Pre-treatment:**
- History and Examination
- Performance score, weight
- FBC
- U & E’s, LFTs, Mg²⁺, Ca²⁺, creatinine, urate, creatinine clearance
- LDH
- ECG
- Staging investigations as per protocol

**Prior to each cycle:**
- Performance score, weight
- FBC
- U & E’s, LFTs, Mg²⁺, Ca²⁺, creatinine
- LDH

**Mid Treatment:** After each cycle

**Post Treatment:** Review in Medical Oncology Clinic 4 weeks after last cycle

Protocol: **VAPEC-B**

**Indications:** Non-Hodgkin’s Lymphoma

**Schedule:**

<table>
<thead>
<tr>
<th>Drug</th>
<th>Dose</th>
<th>iv/infusion/oral</th>
<th>q</th>
<th>Days</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cyclophosphamide</td>
<td>350mg/m²</td>
<td>iv</td>
<td>Day 1</td>
<td></td>
</tr>
<tr>
<td>Doxorubicin</td>
<td>35mg/m²</td>
<td>iv</td>
<td>Days 1 &amp; 15</td>
<td></td>
</tr>
<tr>
<td>Vincristine</td>
<td>1.4mg/m²</td>
<td>iv (max 2mg)</td>
<td>Days 8 &amp; 22</td>
<td></td>
</tr>
<tr>
<td>Bleomycin</td>
<td>10,000iu/m²</td>
<td>200mls N. Saline/30mins</td>
<td>Day 8</td>
<td></td>
</tr>
<tr>
<td>Etoposide</td>
<td>100mg/m²</td>
<td>oral</td>
<td>Days 15-19</td>
<td></td>
</tr>
<tr>
<td>Prednisolone</td>
<td>50mg/m²</td>
<td>daily</td>
<td>Weeks 1-6</td>
<td></td>
</tr>
<tr>
<td>Prednisolone</td>
<td>25mg/m²</td>
<td>daily</td>
<td>Weeks 7-12</td>
<td></td>
</tr>
</tbody>
</table>

**Cycle frequency:** Every four weeks  
**Total number of cycles:** 3

**Dose modification:** Discuss with Consultant

**Administration and safety:**
- Anti-emetic group – Moderately high on days 1 and 15
- Delay if neutrophils < 1.0 x 10⁹/L or platelets < 100 x 10⁹/L
- Ensure adequate renal function and liver function
- Prophylactic PPI and co-trimoxazole
- Round Etoposide dose to the nearest 50mg

**Toxicities:** Myelosuppression and risk of neutropenic sepsis or haemorrhage, nausea & vomiting, mucositis, alopecia, cardiotoxicity, amenorrhea, peripheral neuropathy, constipation, haemorrhagic cystitis, diarrhoea, carcinogenesis, infertility

**Symptomatic treatment of side effects:** Mouth care, encourage oral fluids

**Investigations**

**Pre-treatment:**
- History and Examination
- Performance score, weight
- FBC
- U & E’s, LFTs, creatinine, urate, creatinine clearance
- LDH
- ECG
- Staging investigations as per protocol

**Prior to each cycle:**
- Performance score, weight
- FBC
- U & E’s, LFTs, creatinine
- LDH

**Mid Treatment:** After every cycle

**Post Treatment:** Review in the Medical Oncology Clinic 4 weeks after last cycle

Protocol: **Rituximab (Mabthera)**

Indication: Non Hodgkin’s Lymphoma

Schedule:

<table>
<thead>
<tr>
<th>Drug</th>
<th>Dose</th>
<th>iv/infusion/oral</th>
<th>q</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rituximab</td>
<td>375mg/m²</td>
<td>500mls N. Saline</td>
<td>Day 1</td>
</tr>
</tbody>
</table>

Cycle frequency: Every week  Total number of cycles: 4 (8)

Dose modification:  Discuss with Consultant

Administration and safety:
- Anti-emetic group – Low
- Delay if neutrophils < 1.0 x 10⁹/L or platelets < 100 x 10⁹/L
- Pre-med Rituximab – paracetamol, chlorpheniramine, dexamethasone
- Rituximab Rapid Infusion guidelines apply

Toxicities: Myelosuppression and risk of neutropenic sepsis or haemorrhage, nausea, hyper-sensitivity reaction, carcinogenesis, infertility, allergic-like reaction, bronchospasm, hypotension, cardiotoxicity, chills/fevers, rigors

Symptomatic treatment of side effects: Supportive therapy

Investigations
Pre-treatment:
- History and Examination
- Performance score, weight
- FBC
- U & E’s, LFTs, creatinine, urate
- LDH
- ECG
- Staging investigations as per protocol

Prior to each cycle:
- Performance score, weight
- FBC
- U & E’s, LFTs, creatinine
- LDH

Post Treatment: Review in Medical Oncology Clinic 4 weeks after last cycle

Protocol: **ESHAP**

Indications: Recurrent lymphoma and Hodgkin’s disease

**Schedule:**

<table>
<thead>
<tr>
<th>Drug</th>
<th>Dose</th>
<th>Route</th>
<th>iv/infusion/oral</th>
<th>Days</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cisplatin</td>
<td>25mg/m²</td>
<td>iv continuous infusion</td>
<td>Days 1-4</td>
<td></td>
</tr>
<tr>
<td>Etoposide</td>
<td>40mg/m²</td>
<td>500mls N. Saline/1hr</td>
<td>Days 1-4</td>
<td></td>
</tr>
<tr>
<td>Methylprednisolone</td>
<td>500mg</td>
<td>100ml N. Saline/30mins</td>
<td>Days 1-5</td>
<td></td>
</tr>
<tr>
<td>Cytarabine</td>
<td>2000mg/m²</td>
<td>500mls N. Saline/2hrs</td>
<td>Day 5</td>
<td></td>
</tr>
</tbody>
</table>

Cycle frequency: Every three-four weeks          Total number of cycles: 6

Dose modifications: Discuss with Consultant

Administration and safety:
- Anti-emetic group – High
- Delay if neutrophils < 1.5 x 10⁹/L or platelets < 100 x 10⁹/L
- Ensure adequate renal function
- Pre & post hydration, mannitol, potassium & magnesium
- Double/triple lumen Hickman line required
- Pre-mild eye drops post cytarabine

Toxicities: Myelosuppression and risk of neutropenic sepsis or haemorrhage, nausea & vomiting, mucositis, conjunctivitis, alopecia, peripheral neuropathy, nephrotoxicity, ototoxicity, diarrhoea, red skin, carcinogenesis, infertility

Symptomatic treatment of side effects: Mouth care, encourage oral fluids

**Investigations**

**Pre-treatment:**
- History and Examination
- Performance score, weight
- FBC, ESR
- U & E’s, LFTs, Mg²⁺, Ca²⁺, creatinine, urate, creatinine clearance
- LDH
- ECG
- Staging investigations as per protocol inc. CT scans

**Prior to each cycle:**
- Performance score, weight
- FBC, ESR
- U & E’s, LFTs, Mg²⁺, Ca²⁺, creatinine
- LDH
- CXR

**Mid Treatment:** Re-assess prior to third cycle

**Post Treatment:** Review in Medical Oncology Clinic 4 weeks after last cycle