HiDAC (High Dose Cytarabine) for AML

Indication: Consolidation for Good Risk acute myeloid leukaemia following induction chemotherapy with DA or ADE. Relapsed disease post transplant.

3g/m² is the standard dose. The dose may be reduced to 1.5g/m² in elderly patients or those relapsed post transplant where 3g/m² may not be tolerated.

Regimen details:
- Cytarabine 1500mg/m² IV BD Days 1, 3, 5
- OR
- Cytarabine 3000mg/m² IV BD Days 1, 3, 5

Administration: IV infusion in sodium chloride 0.9% over 4 hours
There is a 12 hour gap between the doses.

Premedication: None required

Frequency: 1 or 2 cycles. Usually for 2 cycles, however if chemotherapy / DLI being used, only 1 cycle may be given.
Proceed with cycle 2 when the response to the first cycle has been assessed i.e. bone marrow aspirate and there is neutrophil and platelet count recovery (i.e. neutrophils ≥ 1.0x10⁹/L and platelets ≥ 100x10⁹/L)

Extravasation: Cytarabine is not a vesicant

Anti- emetics: Cytarabine is highly emetogenic
Follow local anti-emetic policy

Supportive medication: Allopurinol for prevention of tumour lysis syndrome if necessary as per local policy
Mouthcare
Antimicrobial prophylaxis whilst neutrophil count < 0.5 x 10⁹/L as per local policy.
Corticosteroid eye drops as per local formulary (e.g. prednisolone (Predsol®) 0.5% or dexamethasone (Maxidex®) 0.1%), during and for 3 days after completion of chemotherapy

Regular investigations: Prior to day 1:
- FBC
- LFTs
- U&Es
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Dose Modifications

Haematological Toxicity

Generally, neutrophils ≥ 1.0x10⁹/L and platelets ≥ 100x10⁹/L prior to each cycle.

Cycle 2 can go ahead after the response to the first cycle has been assessed i.e. bone marrow aspirate and neutrophil and platelet count recovery.

Renal Impairment

<table>
<thead>
<tr>
<th>Cytarabine</th>
<th>% dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creatinine clearance (mL/min)</td>
<td></td>
</tr>
<tr>
<td>&gt; 60</td>
<td>100% dose</td>
</tr>
<tr>
<td>46 - 60</td>
<td>60% dose</td>
</tr>
<tr>
<td>31 - 45</td>
<td>50% dose</td>
</tr>
<tr>
<td>&lt; 30</td>
<td>Discuss with Consultant</td>
</tr>
</tbody>
</table>

Hepatic Impairment

<table>
<thead>
<tr>
<th>Cytarabine</th>
<th>% dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bilirubin (mmol/L)</td>
<td></td>
</tr>
<tr>
<td>&lt; 34</td>
<td>100% dose</td>
</tr>
<tr>
<td>&gt; 34</td>
<td>50% dose</td>
</tr>
</tbody>
</table>

For both renal and hepatic impairment, confirm any dose reductions with the Consultant as in some circumstances 100% dose may be given.

Toxicities: Cytarabine: ocular pain, foreign body sensation, photophobia and blurred vision. Dizziness, headache, confusion, cerebellar toxicity. Skin freckling, itching, cellulites at injection site, rash, skin sloughing of the palmar and plantar surfaces. Myalgia and bone pain

Drug interactions: None applicable