Interferon alpha-2b (Intron A) in Advanced Malignant Melanoma

Indication: Palliative therapy for Advanced Malignant Melanoma

Regimen details:

**Interferon-alpha 2b**

Initiate treatment with 3MIU SC 3 times weekly (WEEK 1)
then increase to  6MIU SC 3 times weekly (WEEK 2)
if tolerated at above doses, increase to 9MIU SC 3 times weekly (INDEFINITELY)

Doses may need to be adjusted according to patient tolerability (see Comments)

Administration: Subcutaneous bolus injection into the thigh or abdomen. For ease of use, Interferon alpha-2b is available as a multi-dose pen device.

**Multidose pen device** available as:

- 18MIU / 1.2ml
- 30MIU / 1.2ml
- 60MIU / 1.2ml

One ml (1ml) contains 15, 25 or 50 million IU of Interferon alpha-2b, respectively.

The patient (or family member) will need to be trained to self-inject. Training in the use of Interferon pen device is provided via the Clinical Nurse Specialist and chemotherapy nurses

Frequency: Treat indefinitely unless either relapsed/unresponsive to treatment or intolerable side effects

Extravasation: N/A

Anti- emetics: Not routinely required

Supportive medication: Paracetamol 500mg po qds may be taken on day of injection to reduce symptoms of myalgia, fever and pain

Regular investigation: FBC Monthly  
LFTs Monthly  
U&Es Monthly  
Lipids Monthly  
Clinical Toxicity Assessment Monthly

Comments: Dose related side effects may improve over time and patients may gradually be able to tolerate higher dosing regimens
DOSE MODIFICATIONS

Haematological toxicity

<table>
<thead>
<tr>
<th>Neutrophils (x10⁹/L)</th>
<th>Platelets (x10⁹/L)</th>
<th>IFN-α 2b Dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt; 1.5 x 10⁹/L &amp; &gt; 100 x 10⁹/L</td>
<td></td>
<td>Give 100%</td>
</tr>
<tr>
<td>1.0 - 1.5 x 10⁹/L or 50 - 100 x 10⁹/L</td>
<td></td>
<td>Based on clinical assessment: Give 33-66% OR Delay therapy for 1 week and until bloods normalised</td>
</tr>
<tr>
<td>&lt;1.0 x 10⁹/L or &lt; 50 x 10⁹/L</td>
<td></td>
<td>Delay/ omit</td>
</tr>
</tbody>
</table>

Renal Impairment: Interferon alpha 2b use is not recommended if CrCl < 10 ml/min

Hepatic Impairment: Interferon alpha 2b dose should be adjusted as follows:

**ALT/AST**

<table>
<thead>
<tr>
<th>Action</th>
</tr>
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<tbody>
<tr>
<td>&gt; 5 x ULN</td>
</tr>
<tr>
<td>&gt;10 x ULN</td>
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</table>

**Lipids**

<table>
<thead>
<tr>
<th>Triglycerides</th>
<th>Action</th>
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<tbody>
<tr>
<td>&gt; 1.5 x baseline</td>
<td>Consider dose reduction</td>
</tr>
<tr>
<td>&gt; 2.0 x baseline</td>
<td>Discontinue</td>
</tr>
</tbody>
</table>

Toxicities: Dose related: anorexia, nausea, influenza-like symptoms and lethargy; ocular side effects & depression (suicides have also been reported among patients receiving interferons); myelosuppression, particularly of granulocytes; cardiovascular problems (hypotension, hypertension and arrhythmias); hypertriglyceridaemia, occasionally severe. Other side effects: hypersensitivity, thyroid dysfunction, alopecia, psoriasiform rash, confusion, coma & seizures (usually high dose in the elderly). See also Appendix 1

Pregnancy: Avoid

Breast feeding: Avoid

Drug interactions: Interferon alpha 2b

- ACE inhibitors: severe granulocytopenia can develop if ACE inhibitors and Interferon are given concurrently
- Alcohol: reduced response to Interferon
- Coumarins: increased effects of acenocoumarol and warfarin
- Theophylline: reduced metabolism of Theophylline. Consider Theophylline dose reduction
- Zidovudine: increased Zidovudine serum levels. Risk of blood and liver toxicity. Monitor renal function and haematological toxicities parameters and if required, reduce dose of one or more agents.

References:
- SWSHCN- Approved Network Regimen for Advanced malignant melanoma. Nov 2007

Appendix 1. Interferon side effects