Interferon alpha-2a (Roferon-A) in Cutaneous T-cell Lymphoma

Indication: Histologically confirmed Primary Cutaneous T cell Lymphoma and its variants: Mycosis Fungoides Stage IIb to IVb, IB disease refractory to skin directed therapy, Sezary Syndrome

Regimen details:

**Interferon-alpha 2a**

Initiate treatment with 3MIU SC 3 times weekly

If tolerated at above dose, increments of 1-3MIU per dose can be made as required to achieve clinical control. Maximum dose: 12MIU, 3 times weekly

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 2a is available as a multi-dose (18MIU) cartridge, which maybe used with the Interferon pen device, or as pre-filled syringes. Always specify device required when prescribing.

Each **multi-dose cartridge** contains 18MIU interferon alpha 2a per 0.6ml (18MIU / 0.6ml).

**Pre-filled syringes** available as:

- 3MIU / 0.5ml
- 4.5MIU / 0.5ml
- 6MIU / 0.5ml
- 9MIU / 0.5ml
- 18MIU / 0.5ml

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 ($x10^9/L$)</th>
<th>Platelets ($x10^9/L$)</th>
<th>IFN-α 2a Dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt; 1.5 x 10^9/L</td>
<td>&gt; 100 x 10^9/L</td>
<td>Give 100%</td>
</tr>
<tr>
<td>1.0 - 1.5 x 10^9/L</td>
<td>50 - 100 x 10^9/L</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 10^9/L</td>
<td>&lt; 50 x 10^9/L</td>
<td>Delay/ omit</td>
</tr>
</tbody>
</table>

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

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

**ALT/AST**

- > 5 x ULN: Temporarily discontinue. Restart at 50% dose, once symptoms abate
- > 10 x ULN: Discontinue

**Lipids:**

**Triglycerides**

- > 1.5 x baseline: Consider dose reduction
- > 2.0 x baseline: Discontinue

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 2a

- 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:

www.medicines.org.uk
Summary of Product Characteristics. Roferon-A. Roche Products Limited. April’09

Appendix 1. Interferon side effects