**Bexarotene Oral for Cutaneous T-Cell Lymphoma**

**Indication:**
Cutaneous T-Cell Lymphoma (Mycosis Fungoides and Sezary Syndrome)
Advanced, progressive or refractory disease
Patients able to tolerate oral treatment

**Exclusions:**
High risk of pancreatitis, uncontrolled hyperlipidemia, excessive alcohol, uncontrolled diabetes mellitus, biliary tract disease, hepatic insufficiency, vitamin A intake >15,000 IU/day

**Regimen details:**

**Initiation**
Bexarotene 150mg/m² Daily PO First four weeks or until stabilised
(weekly blood tests)

**Maintenance**
Bexarotene 300mg/m² Daily PO Continuous
(See appendix 1. for dosing table)

**Administration:**
Available as 75mg soft capsules.
Capsules to be swallowed whole as a single daily dose, with or immediately after a meal.
Take capsules at the same time each day, for example after breakfast.

**Premedication:**
Fenofibrate 160mg daily PO 1/52, to be started one week before bexarotene

**Frequency:**
Continuous therapy for responders and those with stable disease

**Anti-emetics:**
Not routinely required

**Supportive medication:**
Thyroxine to treat reversible central hypothyroidism when indicated (until 3 months after stopping Bexarotene treatment).
Statins to treat hyperlipidemia when indicated, for responding patients.

**Comments:**
Use non-hormonal, reliable contraception for one month before, during and one month after bexarotene therapy.

**Regular investigations:**

**Baseline:**
FBC
LFTs
LDH, T4, TSH, fasting triglycerides and cholesterol,

**Subsequent**
Weekly fasting triglycerides until stabilisation, then monthly
LFT’s weekly until stabilised, then monthly
TSH, T4 weekly until stabilised, then monthly
FBC weekly until stabilised, then monthly

---

**Reason for Update:** Network Protocol development

**Version:** 1
**Supersedes:** All other versions

**Prepared by:** S Eestila May 08
**Checked by (Network Pharmacist):** J Turner

**Approved by SELCN DTAC Chair:** Nic Ketley
**Date:** 09/08

**Approved by Consultant:** S Whittaker
**Date:** 06/08/08
Bexarotene Oral for Cutaneous T-Cell Lymphoma

Dose Modifications

Haematological Toxicity

<table>
<thead>
<tr>
<th>Neutrophils (x 10^9/L)</th>
<th>Bexarotene</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;0.8 x 10^9/L</td>
<td>100% dose</td>
</tr>
<tr>
<td>0.5-0.8 x 10^9/L</td>
<td>reduce dose</td>
</tr>
<tr>
<td>&lt;0.5 x 10^9/L</td>
<td>Delay</td>
</tr>
</tbody>
</table>

Hyperlipidemia

<table>
<thead>
<tr>
<th>Fasting triglycerides (mmol/L)</th>
<th>Bexarotene</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 3.5</td>
<td>100%</td>
</tr>
<tr>
<td>3.51- 4.4</td>
<td>200mg/m²   Daily (reduce dose)</td>
</tr>
<tr>
<td>≥4.5</td>
<td>Delay until controlled</td>
</tr>
</tbody>
</table>

Maintain glyceride level below 3.4 mmol/L
Monitor serum cholesterol, LDL, HDL

Renal Impairment
No recommendations for reduced doses- monitor carefully in renal impairment

Hepatic Impairment

<table>
<thead>
<tr>
<th>Bilirubin (micromol/L) and/or AST &amp; ALT (units/L)</th>
<th>Bexarotene</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any, greater than 3 x upper limit of normal range</td>
<td>Delay</td>
</tr>
</tbody>
</table>

Toxicities/side-effects: Hypothyroidism, hyperlipidemia, pancreatitis, photosensitivity, anaemia, lens opacities, headache, leucopenia, pruritus, rash, dizziness, insomnia, nausea, myalgia

Drug interactions: Gemfibrozil- increased plasma levels of bexarotene
Insulin, agents enhancing insulin secretion (e.g. sulfonylureas), or insulin-sensitisers (e.g. thiazolidinediones)- bexarotene may enhance the action of these agents, resulting in hypoglycaemia.
Oestroprogestive contraceptives – reduced efficacy. Potentially interacts with CYP3A4 inducers or inhibitors.
Grapefruit juice- increased bexarotene plasma levels.

Comments: To be supplied to the patient for oral self-administration.
Ensure that the patient has an information pack and the treatment plan.

References:
www.medicines.org.uk, accessed May 08
BCCA Protocol Summaries, ULYMFEX. Revised Feb 07.
Micromedex review. Accessed May08.
Personal communications with dermatology consultants, Guys Hospital
**Appendix 1.**

**Dosing table for prescribing Bexarotene:**

<table>
<thead>
<tr>
<th>Body Surface Area (m²)</th>
<th>Total daily dose (mg/day)</th>
<th>Number of 75 mg Bexarotene capsules</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.88 – 1.12</td>
<td>150</td>
<td>2</td>
</tr>
<tr>
<td>1.13 - 1.62</td>
<td>225</td>
<td>3</td>
</tr>
<tr>
<td>1.63 - 2.12</td>
<td>300</td>
<td>4</td>
</tr>
<tr>
<td>2.13 - 2.62</td>
<td>375</td>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Body Surface Area (m²)</th>
<th>Total daily dose (mg/day)</th>
<th>Number of 75 mg Bexarotene capsules</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.88 – 1.12</td>
<td>300</td>
<td>4</td>
</tr>
<tr>
<td>1.13 - 1.37</td>
<td>375</td>
<td>5</td>
</tr>
<tr>
<td>1.38 - 1.62</td>
<td>450</td>
<td>6</td>
</tr>
<tr>
<td>1.63 - 1.87</td>
<td>525</td>
<td>7</td>
</tr>
<tr>
<td>1.88 - 2.12</td>
<td>600</td>
<td>8</td>
</tr>
<tr>
<td>2.13 - 2.37</td>
<td>675</td>
<td>9</td>
</tr>
<tr>
<td>2.38 - 2.62</td>
<td>750</td>
<td>10</td>
</tr>
</tbody>
</table>