Dasatinib for second line therapy for CML

**Indication:** Chronic, accelerated or blast phase chronic myeloid leukaemia (CML), failed or intolerant (grade 3 to 4 adverse events) to imatinib.

**Regimen details:**
- For chronic phase:
  - Dasatinib 100 mg once daily orally continuous
- For advanced (accelerated or blast) phase:
  - Dasatinib 140mg once daily orally continuous

**Administration:**
- Oral
- Available as 20mg, 50mg and 70mg strength tablets
- Tablets must not be crushed or cut, they must be swallowed whole. Dasatinib can be taken with or without a meal.
- The dose should be taken at the same time every day.

**Premedication:** None required

**Frequency:** Continuous

**Extravasation:** Not applicable

**Anti-emetics:** Minimal emetogenic potential (< 10%)

**Supportive medication:** Allopurinol 100 - 300 mg od (dependent on renal function) for first 2 to 3 cycles

**Regular investigations:**
- FBC D1
- LFTs D1
- U&Es D1
- Initially every 2 weeks, less frequently as treatment stabilises.

**Dose Modifications**

**Haematological Toxicity**

**Chronic phase CML (i.e. starting dose 100mg once daily):**

<table>
<thead>
<tr>
<th>Neutrophils (x 10⁹/L)</th>
<th>Platelets (x 10⁹/L)</th>
<th>Dasatinib</th>
</tr>
</thead>
<tbody>
<tr>
<td>≥ 1.0 x 10⁹/L</td>
<td>&amp;</td>
<td>≥ 50 x 10⁹/L</td>
</tr>
<tr>
<td>&lt; 0.5 – 1.0 x 10⁹/L</td>
<td>or</td>
<td>&lt; 50 x 10⁹/L</td>
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<tr>
<td>&lt; 0.5 x 10⁹/L for &gt; 7 days</td>
<td>or</td>
<td>&lt; 25 x 10⁹/L</td>
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**Accelerated or blast phase CML (ie starting dose 140mg once daily):**

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**Reason for Update:** Network Protocol Development

**Approved by Consultant:** Deepti Radia

**Version:** 2

**Approved by Chair Haem TWG:** Maj Kazmi

**Supersedes:** All other versions

**Date:** 25/02/2011

**Prepared by:** Laura Cameron

**Checked by:** (Network Pharmacist): Jacky Turner

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<td>&lt; 0.5 x 10^9/L</td>
<td>or</td>
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</tr>
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If recurrence of cytopenia, stop treatment until neutrophils ≥ 1.0 x 10^9/L and platelets ≥ 20 x 10^9/L. Resume treatment with 100mg once daily (second episode) or 80mg once daily (third episode). If cytopenia is related to leukaemia, consider dose escalation to 180mg once daily.

**Renal Impairment**  
No dose reduction necessary

**Hepatic Impairment**  
Use with caution

**Toxicities:**  
Fluid retention, diarrhoea, skin rash, headache, haemorrhage, fatigue, nausea, dyspnoea, musculoskeletal pain, pyrexia.

**Drug interactions:**  
Dasatinib is a substrate and an inhibitor of CYP3A4. Therefore, there is potential for interaction with other concomitantly administered medicinal products that are metabolised primarily by or modulate the activity of CYP3A4.

**References:**  
[www.medicines.org.uk](http://www.medicines.org.uk)  