Haematological cancers (cancer of the blood cells) are the fifth most common type of cancer in the UK, accounting for 7% of all cancers. This is a uniquely diverse group which is subdivided into three main diseases: myeloid neoplasms (including acute leukaemias), lymphoid malignancies and plasma cell disorders.

Some forms of haematological cancers are highly aggressive, while others are so benign that they may be picked up only by chance. Symptoms can include lumps (in a variety of body sites), which are typical of lymphomas; bone fractures and kidney problems, characteristic of myeloma; and fatigue and vulnerability to infection, which can result from most types of haematological cancer but are particularly severe in acute leukaemias. Some haematological malignancies have a significant risk in the under-25 year age group; therefore, it is critical to have links with a teenage and young adult service. Survival rates are variable, with notable successes in treatment over the last two decades in diseases such as chronic myeloid leukaemia, myeloma and acute leukaemia.

Table 1: Number of new haematological cancer cases diagnosed in the LCA, 2010

<table>
<thead>
<tr>
<th>ICD 10 code</th>
<th>Condition</th>
<th>Number of cases (2010)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Acute leukaemias and myeloid neoplasms</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C91</td>
<td>Lymphoid leukaemia</td>
<td>254</td>
</tr>
<tr>
<td>C92</td>
<td>Myeloid leukaemia</td>
<td>258</td>
</tr>
<tr>
<td>C93</td>
<td>Monocytic leukaemia</td>
<td>2</td>
</tr>
<tr>
<td>C94</td>
<td>Other leukaemias of specified cell type</td>
<td>5</td>
</tr>
<tr>
<td>C95</td>
<td>Leukaemias of specified cell types</td>
<td>26</td>
</tr>
<tr>
<td><strong>Myeloma</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C90</td>
<td>Multiple myeloma and malignant plasma cell neoplasms</td>
<td>318</td>
</tr>
<tr>
<td><strong>Lymphoid conditions</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C81</td>
<td>Hodgkin disease</td>
<td>224</td>
</tr>
<tr>
<td>C82</td>
<td>Follicular non-Hodgkin lymphoma</td>
<td>160</td>
</tr>
<tr>
<td>C83</td>
<td>Diffuse non-Hodgkin lymphoma</td>
<td>307</td>
</tr>
<tr>
<td>C84</td>
<td>Peripheral and cutaneous T-cell lymphomas</td>
<td>45</td>
</tr>
<tr>
<td>C85</td>
<td>Other and unspecified types of non-Hodgkin lymphoma</td>
<td>273</td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C88</td>
<td>Malignant immunoproliferative diseases</td>
<td>11</td>
</tr>
<tr>
<td>C96</td>
<td>Other and unspecified malignant neoplasms of lymphoid, haematopoietic and related tissue</td>
<td>7</td>
</tr>
</tbody>
</table>

Source: National Cancer Intelligence Service
Table 1 (above) shows the number of defined haematological malignancies seen in the LCA in 2010, but does not include pre-malignant conditions such as monoclonal gammopathy of unknown significance (MGUS) or those disorders which span the spectrum between benign and malignant conditions such as some of the myeloproliferative disorders. All of these present a significant case load for haematologists. The size and complexity of these guidelines reflect the diversity of the haematological cancers that haematology services across the LCA may have to deal with.

Haemat-oncology services are available throughout the LCA (with the exception of the Royal Brompton & Harefield NHS Foundation Trust). This presents additional challenges as many haematologists undertake benign haematology, including supporting haematology diagnostic laboratories, as well as providing haemat-oncology services. In the larger centres, some degree of super-specialisation has taken place.

Haemat-oncology, although primarily outpatient-based like other cancers, does have a significant inpatient component. The British Society of Haematology Levels of Care document (2009) defines levels of care which reflect the facilities and resources required to treat patients with haematological malignancies according to:

- the complexity of the treatment delivered
- the duration of anticipated neutropenia following chemotherapy
- in some instances, the rarity of the disease subtype.

There are three major levels of care: 1–3, with Level 2 being subdivided into Level 2a and Level 2b. These relate predominantly to the facilities required for the delivery of chemotherapy for haematological malignancies. The full criteria against which these levels of care are assessed and the resources required to meet them are detailed in the British Society for Haematology’s Levels of Care document.

Haematopoietic progenitor cell transplantation (HPCT) is the transplantation of blood stem cells derived from the bone marrow or blood and encompasses a variety of procedures. Its essence is the ablation and replacement of the haemopoietic (blood cell) system either in an autologous procedure (i.e. patient has their own cells reinfused) or in an allogeneic procedure (cells derived from a third party, either from a family member, volunteer unrelated donor or cord blood donor). The majority of these transplants are used to treat malignant blood disorders. These guidelines exclude HPCT other than identifying where in the treatment pathway this technology is applicable.

All LCA transplant centres are JACIE\(^1\) accredited and have detailed standard operating procedures regarding transplantation. The LCA guidelines do not replace Trust-specific standard operating procedures for HPCT. Transplant directors across the LCA are looking at ways to align their standard operating procedures and guidelines where possible.

The LCA Haemato-Oncology Clinical Guidelines have been developed by the LCA Haemato-Oncology Pathway Group to ensure that care throughout the LCA conforms to international best practice. They draw on the expertise of a range of clinicians from across the LCA’s 15 provider organisations, and subsequently

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\(^1\) For more information on JACIE accreditation, see [www.jacie.org/home](http://www.jacie.org/home)
reflect the wider pathway. They also take into consideration the National Cancer Peer Review Programme’s *Manual for Cancer Services, Haemato-oncology Cancer Measures*, version 1.1. ([www.cquins.nhs.uk/?menu=resources](www.cquins.nhs.uk/?menu=resources))

The LCA guidelines are multidisciplinary and cover imaging, pathology, radiotherapy, systemic therapy and survivorship. Where recommendations fall outside current NHS commissioning arrangements this has been highlighted and it is the responsibility of the individual provider to secure funding.\(^2\) The guidelines provide evidence-based clinical information and protocols on all aspects of care, while allowing sufficient flexibility to reflect good local practice, and should therefore be used by clinicians to inform the treatment and care they provide.

The LCA guidelines are designed to be used by all healthcare professionals in LCA provider organisations who are involved in the care of patients with haematological cancer. They have been developed to take into account the wide range of clinical experience of the user and the different clinical settings in which they work.

All Trusts are expected to be able to provide the standard of care detailed in these guidelines. Some of the recommendations in these guidelines will be challenging to implement but, as the role of the LCA is to ensure that world-class quality of care is delivered for its patients with cancer, it is anticipated that provider organisations will use these guidelines as a tool to support change improvement. Regular monitoring and audit will be undertaken to ensure compliance against these guidelines across the LCA.

The LCA Haematology-Oncology Pathway Group meets regularly, and the guidelines will be reviewed annually to ensure that they are updated with emerging evidence and changes in practice.

I would like to thank all the clinicians from across the LCA who have contributed to the development of these comprehensive clinical guidelines. A full list is available in the Acknowledgements.

In particular, I would like to thank the condition-specific work group leads for their role in the development and coordination of the relevant guidelines:

- **Dr Nicki Panoskaltsis**, Consultant Haematologist, London North West Healthcare NHS Trust, *Acute Leukaemias and Myeloid Neoplasms*
- **Dr Claire Dearden**, Consultant Haematologist, The Royal Marsden NHS Foundation Trust, *Lymphoid Malignancies*
- **Dr Matthew Streetly**, Consultant Haematologist, Guy’s and St Thomas’ NHS Foundation Trust, *Plasma Cell Disorders*.

**Dr Majid Kazmi**

**Chair, LCA Haematology-Oncology Pathway Group**

**Consultant Haematologist and Clinical Director**

**Guy’s and St Thomas’ NHS Foundation Trust**

**King’s College Hospital NHS Foundation Trust**

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\(^2\) Up-to-date information on the Cancer Drugs Fund can be found at [www.england.nhs.uk/ourwork/pe/cdf/](www.england.nhs.uk/ourwork/pe/cdf/)