

7.6 HAEMATOLOGICAL CANCER

Introduction

There are two main types of *haematological cancers*, *leukaemias* and *lymphomas*.

(a) *Leukaemia*

Levels of leukaemia have remained the same over the last twelve years. There are around 87 cases per year for men and 64 for women.

Survival from this disease is low - around 31% of patients are alive five years after diagnosis. While improvements in survival over the last decade have been slow, there is evidence of a definite decrease in female deaths in Northern Ireland. There is hope that new treatment types may improve survival over the next ten years; a prime example being the development of the Glivec drug which improves survival from *chronic myeloid leukaemia*.

Risk factors

- Exposure to high levels of radiation and chemical benzene increase the risk of developing *acute myeloid leukaemia*.
- Smokers have a higher risk of developing *acute myeloid leukaemia* with smoking being directly responsible for 1 in 5 new cases.
- Other factors that increase risk include: previous chemotherapy, blood disorders such as aplastic anaemia and myelodysplastic syndrome, inherited conditions such as Down's syndrome and infections such as human T-cell leukaemia virus.
- A possible risk factor for *chronic lymphocytic leukaemia* is family history.
- Established risk factors of *chronic myeloid leukaemia* include exposure to either high levels of radiation or benzene.

(b) *Lymphomas – Hodgkin's and non-Hodgkin's*

Hodgkin's disease is a cancer of the *lymphatic system* accounting for 13% of *lymphomas*. There were 48 people diagnosed with this disease in 2005.

The risk of developing Hodgkin's disease is low – just over 1 in every 500 people. Rates of newly diagnosed cases of this cancer are higher in males than females. The rates for Hodgkin's disease have stayed the same in Northern Ireland for a number of years. Three out of every four people who have the disease are alive five years after diagnosis.

Not much is known about the causes of this disease though two possible factors have been suggested: infection with Epstein-Barr virus and/or a faulty gene.

Non-Hodgkin's lymphoma is one of the more common cancers being the seventh most common male and female cancer in N. Ireland. 266 people are diagnosed each year. This number has remained fairly steady over time while male death rates have fallen.

The risk of non-Hodgkin's lymphoma is increased by the use of immuno-suppression, for example in transplant patients, or among those with HIV infection. Other factors can increase the risk of developing this cancer: Epstein-Barr virus, helicobacter pylori, coeliac disease, and human T cell lymphoma. Around one in every two patients with the disease are alive five years after diagnosis. However, survival from this disease is improving slowly with improvements in one-year survival identified in Northern Ireland.

Overarching standard 39:

All people with a suspected *haematological cancer* should have access to an integrated diagnostic service which offers them accurate diagnosis, appropriate treatment and support.

Rationale:

Improving consistency and accuracy of diagnosis is probably the single most important way of improving outcomes in haematological cancers. The diagnosis of haematological cancers has improved a lot over the past thirty years. *Immunological, genetic and molecular techniques* are now part of the diagnostic process and improve the accuracy of diagnosis. Since 2001 the World Health Organisation Classification of Tumours of the Haematopoietic and Lymphoid Tissues has been the accepted system for diagnosis and allows for standardisation of treatment.

Evidence:

Jaffe E, Harris N, Stein H and Vardiman J. (2001) WHO classification of tumours, pathology and genetics, tumours of haematopoietic and lymphoid tissues. IARC Press, Lyon, France.

British Committee for Standards in Haematology and Royal College of Pathologists (2008) Best practice in lymphoma diagnosis and reporting http://www.bcshguidelines.com/pdf/best_practice_lymphoma_diagnosis.pdf

National Institute for Health and Clinical Excellence (NICE) (2003) Improving outcomes in haematological cancers <http://guidance.nice.org.uk/CSGHO>

Responsibility for delivery / implementation

HSC Board
Public Health Agency
HSC Trusts
Multidisciplinary teams

Quality Dimension**Safe, Effective & Patient Centred**

Accurate diagnosis informs decision making about appropriate treatment and counselling for patients and improves outcomes.

Performance Indicator	Data source	Anticipated Performance Level	Date to be achieved by
Percentage of patients whose samples undergo <i>immunophenotyping</i> , genetic or molecular analysis	Laboratory information system British Committee for standards in Haematology and Royal College of Pathologists	80% 100%	March 2011 March 2012

NOTE: Performance indicators and targets will be reviewed and adjusted as necessary, in the light of the current Budget settlement for 2011/12 to 2013/14.

Overarching standard 40:

Patients with *haematological cancers* should be given treatment in line with agreed, evidence based *Clinical Management Guidelines* (CMGs).

Rationale:

Patients have the best outcome when chemotherapy and other treatments are started promptly after diagnosis, and given at the optimum dose and interval (i.e. are properly spaced apart). Use of evidence based CMGs incorporating NICE recommendations ensures that patients achieve the best outcomes possible.

Evidence:

Regional Advisory Committee on Cancer (RACC) (2004) Guidance for the Management of Haematological Cancer <http://www.dhsspsni.gov.uk/dhs54106-raac-book.pdf>

National Institute for Health and Clinical Excellence (NICE) (2003) Improving outcomes in haematological cancers <http://guidance.nice.org.uk/CSGHO>

Responsibility for delivery / implementation

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Quality Dimension**Timely, effective & Patient Centred**

Starting treatment straight after diagnosis means that patients are more likely to complete their course of treatment. It is also associated with better outcomes and improved quality of life for patients during and after treatment. For some haematological cancers immediate access to treatment is of crucial importance.

Performance Indicator	Data source	Anticipated Performance Level	Date to be achieved by
Agree regional clinical management guidelines	NICaN Regional Haematology Cancer Network	Agree guidelines	March 2011

Percentage of patients receiving therapy in line with the clinical management guidelines (except where a change is indicated by response/other clinical circumstance)	MDM management plans & chemotherapy charts	Establish baseline Performance level to be determined once baseline established	March 2011
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