

# Blood Matters

Newsletter for the Haematology Association of Ireland Nurses' Group

October 2008

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## Letter from the Editor...

Welcome to this colourful issue of Blood Matters, containing both educational articles and updates on what's new in the world of Haematology. We learn of significant advancements in cancer clinical trials in Northern Ireland, with the expansion of service provision throughout the entire province. Also look inside to see the recently opened state of the art Centre for Cancer Research and Cell Biology (CCRCB) and learn of the many exciting projects which are ongoing there.

Blood Matters reports on a new All Ireland Anaemia Nurse Forum which aims to standardise practice throughout the country by utilising evidence based guidelines. Sometimes it doesn't take a big change in practice to make an impact on the patients' experience. This has been the case for Ward 10N in the Belfast City Hospital who strongly recommend the role of the "Haematology housekeeper"!

We commence part one of a two part series article exploring the condition of aplastic anaemia; this issue address the pathogenesis and diagnosis of the condition. Find out also how the Human Tissue Act is impacting on Haematology practice north of the border. The regular features of poetry corner and the prize winning crossword are once more presented. This time test your knowledge of all things related to anaemia and we'll reward you with €50!

As always, we would be delighted to receive articles for Blood Matters from across Ireland to showcase knowledge, good practice and service improvements. We look forward to seeing you all in Armagh where we can promise you an eclectic and interesting programme.

Yours, on behalf of the HAI Nurses' Committee

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# Spring Study Day 2008



Rush hour at registration!

The HAI nurses' group enjoyed another successful Spring Study Day on Friday 18th April in the Airport Hilton Hotel, Dublin kindly sponsored by Amgen. Following the now traditional coffee, scones, jam and cream, Dr Larry Bacon commenced the programme by delivering a lively and engaging presentation on Hodgkin's Lymphoma. This was followed by Wesley Sterling, a lecturer from Queens University, Belfast, explaining the principles of pharmacodynamics, pharmaceuticals and pharmacokinetics in a very clear and informative way, and applying these principles to Haematology practice. Next there was an exploration of dietetic issues specific the Haematology by Gillian Killiner, who incorporated case studies and offered many practical suggestions to improve care and optimise patient compliance.



Anyone for a cocktail??

The final presentation of the morning concentrated on infection control, specifically the very topical *Clostridium Difficile* organism. Caroline Smith, an infection prevention and control nurse from the Belfast Trust, both educated and entertained us with some of her memorable examples and analogies! Despite the pre lunch topic everyone subsequently tucked into their three course buffet with gusto!

Caroline Smith sharing the secrets of infection control!



Fiona O'Loughlin, A CNS from Our Lady's Children's Hospital, Crumlin was the first speaker of the afternoon and she introduced the novel model of shared care in paediatric Haematology. She offered a balanced discussion as to the pro's and con's of incorporating local hospitals, home care teams and parents along with the specialist oncology/haematology centre into the care of children, along their whole cancer journey trajectory. The penultimate speaker was Eugene Byrne, a CNS in Psycho-Oncology from St James', Dublin, who presented an animated talk regarding stress, burnout and boundaries in palliative care, highlighting scenarios familiar and pertinent to us all. After a few tense moments due to the infamous Dublin traffic, Dr Marie Toomey arrived to round off the paediatric sessions, and indeed the day, with a poignant dialogue concerning holistic paediatric palliative care.



Still smiling at the end of the day!

Thanks from the HAI nurses' committee to all the centres who supported the day and to the delegates who contributed to the questions and discussion, making it a worthwhile and well evaluated event.

# All Ireland Anaemia Nurse Forum

By Sylvia Macken, Oncology / Haematology Course  
Clinical Facilitator, AMNCH, Tallaght, Dublin.

From an Oncology and Haematology Nursing Practice perspective, Anaemia has been identified as being a symptom which can significantly impact on a patient's Quality of Life.

The Anaemia Nurse Forum was set up with support from Roche Pharmaceuticals Ireland Ltd. The aim of this forum is to bring together nurses from around the country who are looking after cancer patients, both Oncology and Haematology, and guide them with the management of anaemia in cancer. What we hope to achieve is to standardise practice throughout the country utilising evidence based guidelines.

The All Ireland Anaemia Nurse Forum was initiated following an anaemia meeting in The Lyrath Hotel, Kilkenny, in May 2006. The guest speaker at the meeting was Ivor Calvill, senior lecturer in Haematology, University of Wales College of Medicine, Cardiff. The meeting highlighted the impact that anaemia can have on cancer patients, and how easily it may be managed once the guidelines are adhered to.

In 2008, we convened for the third time in Dublin, chaired by Sylvia Macken. From this meeting a core group of people have been identified to move forward with this forum with a view to holding a National Nursing Conference in Anaemia. We aim to continue to provide best practice to this vulnerable group of



## Anaemia Nurse Forum

patients by producing Standard of Care Guidelines that can be utilised in cancer units around the country.

Ongoing work includes the formulation of our mission statement and objectives, and we await the publication of the most current Cochrane review to inform our guidelines. We have plans to create a newsletter in which we will publish updates of our progress.

### References:

1. Leitgeb C et al. Cancer 1994; 73 (10) 2535 - 2545

Best wishes from the HAI Nurses' committee for this project.



**“The Anaemia Nurse Forum was set up with support from Roche Pharmaceuticals Ireland Ltd”**

# Acquired Aplastic Anaemia. (Part 1)

By Claire Jess, Staff Nurse, Bridgewater Suite, Belfast Trust, City Hospital.

Acquired Aplastic Anaemia (AA) is a rare haemopoietic stem-cell disorder resulting in pancytopenia and hypocellular bone marrow where haemopoietic cells are replaced by fat cells (Brodsky and Jones, 2005). There is biphasic age distribution with peaks at 10-25 years and >60 years, with no significant difference in incidence between males and females (Marsh, 2007).

Studies have shown that lupus, rheumatoid arthritis, acute myeloid leukaemia (AML), myelodysplastic syndromes (MDS) and paroxysmal nocturnal hemoglobinuria (PNH) are linked to the development of AA (Marsh, 2006). Infectious diseases have also been implicated including hepatitis (5-10%), Epstein-Barr virus, cytomegalovirus (CMV) and HIV (Provan and Weatherall, 2000; Alkhoury and Ericson, 1999). Precipitating factors include the use of pesticides, arsenic and benzene; ionizing radiation, chemotherapy and medicines such as chloramphenicol (Young, 2006). However, neither chemicals nor drugs appear to account for a large proportion of cases (Brodsky and Jones, 2005).

## Pathogenesis of Acquired Aplastic Anaemia

The pathophysiology is poorly understood; mostly AA behaves as an immune mediated disease, occurring when the body's T-lymphocytes start to attack the body's tissues. There is cytotoxic T-lymphocyte activation, increased interferon- $\gamma$  and tumour necrosis factor (TNF) expression, all of which mediate the destruction of haemopoietic stem-cells (Young, 2006; Brodsky and Jones, 2005; BCSH, 2003). The responsiveness of AA to immunosuppression remains the best evidence of an underlying immune pathophysiology as the majority of patients show haematologic improvement after only transient T-cell depletion by antithymocyte globulins (ATG) (Young, 2006; BCSH, 2003). Nevertheless in about 75% of all cases, the immune mediated reaction has no clear underlying cause (Young, 2006; BCSH, 2003). According to Brodsky and Jones (2005) AA can present abruptly or insidiously over weeks to months where clinical manifestations are proportional to the peripheral blood cytopenias including; dyspnoea, fatigue, petechiae, epistaxis, gingival bleeding, heavy menses, headache and fever.

## Diagnosis

A full blood count, leucocyte differential, reticulocyte count, blood film and a bone-marrow aspirate and biopsy aid diagnosis (Dannie, 2000). Bone-marrow aspirate and trephine biopsy can be highly suggestive of aplasia with grossly hypocellular particles, although the trephine biopsy is necessary to confirm diagnosis and quantify the degree of hypocellularity (Howard and Hamilton, 2008; Marsh, 2007). Peripheral-blood flow cytometry can rule out PNH and bone-marrow karyotyping may exclude hypoplastic myelodysplastic syndromes. Full blood count (FBC) typically shows pancytopenia while the lymphocyte count is usually preserved. In the majority of cases the haemoglobin level, neutrophil and platelet counts are uniformly depressed, but in the early stages isolated cytopenia, particularly thrombocytopenia

and macrocytosis is common (Howard and Hamilton, 2008; BCSH, 2003). Platelets are reduced and mostly of small size and reticulocytes are few or absent from peripheral blood (Provan and Weatherall, 2000).

AA incorporates a wide range of disease activity from very mild to severe, whereby the risk of morbidity and mortality correlates better with the severity for the cytopenias than with bone-marrow cellularity. Classification includes non-severe, severe or very severe based on the degree of peripheral blood pancytopenia. Severe AA is defined as bone marrow cellularity <25%, or 25-50% with <30% residual haemopoietic cells and two out of three of the following: neutrophils <0.5 x 10<sup>9</sup>/l; platelets <20 x10<sup>9</sup>/l and reticulocytes <20 x10<sup>9</sup>/l. Very severe meets the same criteria but the neutrophil count is below <0.2 x 10<sup>9</sup>/l; non-severe is characterised by a hypocellular bone marrow except the cytopenias do not meet the criteria for severe disease (BCSH, 2003). Brodsky and Jones (2005) established that there is little evidence on the outlook for patients with non-severe AA and although it can progress, many patients remain stable for years whereas in contrast some spontaneously improve.

## Management of Acquired Aplastic Anaemia

Marsh (2007) emphasises the need for careful assessment of disease severity according to the standard criteria as it is essential for management decision making and also prognostic significance. Management of severe AA consists of supportive therapy and definitive treatment. Supportive therapy involves red-cell and platelet transfusions, prophylactic antibiotics and antifungals and also effective hygiene measures (Provan and Weatherall, 2000). Definitive measures to restore bone marrow activity include: haematopoietic stem-cell transplantation (HSCT); immunosuppressive therapy with anti-thymocyte (ATG) or anti-lymphocyte (ALG), ciclosporin; and high-dose cyclophosphamide, with or without bone-marrow transplantation (BCSH, 2003).

### References

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Part two of this article will be published in the next issue of Blood Matters and will address supportive and definitive therapies for Aplastic Anaemia.

# Happy Housekeeping in Haematology

A nursing activity audit carried out within Ward 10N Haematology in the Belfast City Hospital highlighted the number of non-nursing duties which regularly divert nurses from direct patient care. One of the initiatives which has been instigated to support nurses to utilise their time to the best advantage is the creation of a "housekeeper" role. Lily Hughes was appointed to this role in Ward 10N in January 2007, and since then measurable improvements have been noted in the clinical area.

## Role clarification

Role clarification was vital to the success of this post, to differentiate between the duties of the housekeeper and those of domestic services and nursing auxiliaries.

## Remit of the role

The housekeeper does not have a direct role in patient care but assists with:-

- Bed making
- Provision of dietary supplements
- Liaison with multidisciplinary members such as the dietician
- Hostess duties at meal times
- Cleaning of clinical equipment
- Stock ordering and replenishment
- Coordinating fault reporting and organising repair of equipment
- Photocopying and replenishing of documentation
- And much more....

## Benefits of the role

In her role as housekeeper, Lily has played an invaluable part in enhancing patient choice at mealtimes and promoting patient compliance with special dietary requirements. Her role has been instrumental in progressing clinical governance targets, for example risk management. This is evidenced by her contribution to prevention and control of infection, as the clinical area is well resourced, and equipment regularly cleaned and well maintained.

## Career development

The housekeeper has been enabled to develop in her role as she has been supported to undertake a National Vocational Qualification (NVQ) level 2, in Care. She also receives mandatory training such as infection control and hygiene product updates.

## A role to be recommended

Sometimes it's the smallest things that make the biggest difference to the patient experience. Although Lily's housekeeping role involves no direct patient care, there has been a significant impact on the quality and efficiency of the service in Haematology. The nurses are working within a well organised environment and can maximise their time at the patients bedside. This valuable role is to be recommended - but then again it might be hard to find someone as good as our Lily!!!

**"In her role as housekeeper, Lily has played an invaluable part in enhancing patient choice at mealtimes and promoting patient compliance"**



# Increased Research Nurse Support for Haematology Clinical Trials in N. Ireland

By Ruth Boyd, Cancer Research UK Senior Nurse. [ruth.boyd@belfasttrust.hscni.net](mailto:ruth.boyd@belfasttrust.hscni.net)

The recruitment of four new Clinical Research Nurse (CRN) posts has led to an increased capacity to co-ordinate and run haematology clinical trials in N. Ireland. The N. Ireland Clinical Research Network for Cancer is currently being established and these new posts form part of this exciting development. The posts are jointly funded by the NI Health and Social Care Research and Development Office and Cancer Research UK. The CRNs are based in the Royal Belfast Hospital for Sick Children and the Cancer Units within Antrim Hospital, Craigavon Hospital and the Ulster Hospital. These research nurses will work within a network alongside the longer established haematology CRN posts in Belfast, and with the haematology and oncology Clinical Trials Co-ordinator at Altnagelvin Hospital. Additionally, a fifth CRN post for the network will soon be advertised for Altnagelvin Hospital.

The key aims of this new development are:

- To increase patient and professional awareness about the clinical research process and its benefits
- To increase patient access to cancer clinical trials across N. Ireland and increase recruitment to clinical trials
- To promote quality patient care by clinical research participation
- To deliver a network of clinical trial activity co-ordinated through the N. Ireland Cancer Clinical Trials Unit

The primary role of the CRN is to ensure patients receive the safest possible, high quality care in clinical trials, working within a team.

## New Clinical Research Nurse Posts in N. Ireland



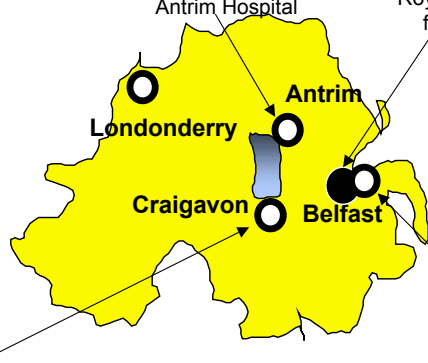
Aishleen Cunningham, Antrim Hospital



Sinead Gallagher, Royal Belfast Hospital for Sick Children



Ruth Hall, Craigavon Hospital



Location of Cancer Unit



Location of Cancer Centre and Royal Belfast Hospital for Sick Children

## Background to Clinical Research Nursing in N. Ireland

Clinical trials play a pivotal role in developing new therapies for patients to improve clinical outcomes and enhance patients' quality of life. Clinical trials offer patients access to new study drugs and increase their treatment options. The N. Ireland Cancer Clinical Trials Unit (NICCTU), based at the Belfast City Hospital, was established in 1999 with the objective to co-ordinate all phases of cancer trials in N. Ireland and also drive Phase I and Phase II trial activity and the integration of translational research. Alongside these objectives the NICCTU promotes the development and training of clinical research staff in clinical trials methodology and practice.

Clinical Research Nurses (CRNs) have been recognised as having a vital role within clinical research as study site co-ordinators. The role incorporates application of knowledge and understanding of the legal, ethical, research governance and procedural aspects of research to ensure the safe conduct of a clinical trial. The role is also patient and carer focused. CRNs support patients as they consider study information and provide patients with a clear explanation of what clinical trial participation will mean for each individual. If the patient gives informed consent to participate in a clinical trial the research nurse co-ordinates care and offers continuity of education, support, clinical care and monitoring throughout the therapy and during the follow-up period.

In the last decade research nursing in cancer has grown within the NICCTU to its current complement of 20 permanent CRN posts.

Within adult haematology at the Belfast City Hospital 3 CRNs are currently recruiting patients to a study portfolio of 13 trials in leukaemia, lymphoma and myeloma, and many more studies are in set-up. The expansion in the number of CRNs across the region is a significant development for cancer patients, offering them more clinical trial options at Cancer Units closer to their homes. By increasing participation to clinical trials in N. Ireland, quality of care is enhanced and study results can be reported more quickly, providing essential information about better ways to prevent, diagnose or treat haematological cancers in the future.

The next issue of 'Blood Matters' will include an article on clinical research in paediatrics.

## Forthcoming Events

**17 - 18th October 2008** Haematology Association of Ireland annual conference. Armagh City Hotel, Armagh.  
<http://www.ncnm.ie/haing/events.asp>

**23rd October 2008** UK Myeloma Forum Education Day, Institute of Physics, London  
[www.myeloma.org.uk](http://www.myeloma.org.uk)

**12th November 2008** EBMT UK, Liverpool  
<http://www.ebmt.co.uk/meeting.html>

**13th - 15th November 2008** Oncology Nursing Society advanced practice conference, Seattle.  
<http://ons.org/meetings/apn08/>

**14-15th November 2008** ESH-EHA Haematology tutorial. Dublin  
<http://ehaweb.org/e-card/e-flyer/Dublin/>

**6th - 9th December 2008** ASH annual meeting, San Francisco  
<http://www.hematology.org/meetings/2008/index.cfm>

**24th - 27th March 2009** RCN International nursing research conference, Cardiff, Wales. <http://www.rcn.org.uk/development/researchanddevelopment/rs/research2009>

**29th March - 1st April 2009** EBMT annual conference, Goteborg, Sweden. (patient and family day on 28th March)  
<http://www.akm.ch/ebmt2009/>

**27th - 29th April 2009** British Society for Haematology annual scientific meeting, Brighton, England.  
<http://www.b-s-h.org.uk/AnnualMeeting.asp>

**22nd - 25th April 2009** ASPHO annual meeting. San Diego  
<http://www.aspho.org/i4a/pages/Index.cfm?pageID=560>

## My Memories...

The best and worst day of my life  
I realised my priorities were not in order  
Now I'm proud  
Here is my journey

Christmas Eve  
24 hours to live, going to die  
I'm only 26  
I got angry, decided to fight

Nightmares..  
Watched my own funeral  
Real nightmares..  
Watched my friends (patients) pass away  
One by one  
I couldn't give them my heart

Best memory... remission  
Smelling the air outside.

Stem cell transplant  
The beginning of my new life  
A better life  
I enjoy life  
Project positive energy  
It touches people.

The nurses and doctors are angels  
Part of your life pain and joy  
My angels now see me 4 years on  
Large as life itself  
Long brown curly hair  
My new edition

With happiness and hope  
I thank fate for my leukaemia.

This young woman, a survivor, has penned 'memories' of her journey - the good, the bad and the awful - in the last line she is looking forward and expresses a sense of gratitude for the experience...

The poem is reproduced here with the author's permission.

# Poetry Corner

# What impact has the Human Tissue Act (2006) had on Haematopoietic Transplantation in Northern Ireland?

Eilish Dorrian, Team Leader Ward 10N Belfast City Hospital and Tracey McGuigan, Haematology Research Nurse, Northern Ireland Cancer Clinical Trials Unit.

## Introduction

The Human Tissue Act (2006) came into force on 1st September 2006 in N. Ireland, England and Wales following the Bristol Royal Infirmary and Alder Hey Children's Hospital scandals. It repeals and replaces the Human Tissue Act (1961), the Anatomy Act (1984) and the Human Organs Transplants Act (1989). This paper will review the context of events and why this led to a need for legislative review and the introduction of this Act. The impact of the new law on haematopoietic transplantation will be explored, focusing on consent, regulation and storage.

## Scandals

The Kennedy Report found that at the Bristol Royal Infirmary between 1984 - 1995 "a number of hearts, brains and other tissues had been taken from children during the course of post mortem examinations following paediatric cardiac surgery, and retained". During the investigation it was revealed that the pathologists involved erroneously considered that it was permissible to remove and retain organs and tissues, aside from those required to determine cause of death. They cited reasons such as teaching, research and audit, or simply archival storage. There was shock and anger from the parents involved as they were neither aware of this practice nor had consented. Furthermore, the Redfern Report found unethical and illegal retention of tissues and organs harvested from babies between 1988 - 1996 at the Alder Hey Hospital. This report found overall failure of management actions and systems of accountability.

## The National Picture

In June 2002 the Human Organs Inquiry confirmed that organ retention had occurred in Northern Ireland. The Chief Medical Officer for Northern Ireland, Dr. Henrietta Campbell, noted that the current law in this area was neither as comprehensive nor as clear and consistent as it might be. Throughout Scotland, Wales and England other similar pictures occurred, impacting on the general public's faith in the NHS. Subsequently the government called for an extensive review of all relevant legislation to ascertain what safeguards existed.

## The Need for Review

Both the Bristol and Alder Hey reports highlighted that the existing law certainly contained vague and obscure language. The wording was biased towards a lack of objection as opposed to an informed consent. In addition, medical staff had only to ascertain a reasonable line of enquiry in regard to objections. Notably, the Redfern Report found that there was abundant evidence of failure by clinicians to make any requisite enquiries.

## The Human Tissue Act

The new legislation provides a robust framework covering all activities involved with the procurement, storage and use of tissue from the living, and removal, storage and the use of tissue or organs from the deceased. The Act is divided into three main parts;

1. Consent
2. The establishment of a regulatory body (The Human Tissue Authority, HTA)
3. Supplementary issues such as powers of licensing, inspection, entry, search and seizure.

The Human Tissue Act refers to 'relevant material', which is that which comes from a human body and consists of, or includes, human cells. Excluded are hair and nail from living people, and cell lines created outside the body. Live gametes and embryos are covered separately by the Human Fertilisation and Embryology Act (1990).

An important mandate for those involved is the EU Tissues and Cells Directive (EUTCD) 2006. It governs the procurement, processing, storage and distribution / transplantation of cells in the EU.

## Role of the Human Tissue Authority

The Human Tissue Authority (HTA) is a regulatory body formed on 1st April 2005 as a result of the Human Tissue Act (2004). It is made up of 17 members from a variety of medical and non-medical backgrounds. Their role involves licensing and inspection of premises, issuing Codes of Practice to provide advice and guidance, setting standards expected from practitioners, and responsibility for implementing the EUTCD, to ultimately ensure good practice. Failure to follow their guidance may be taken into account when licensing decisions are made.

The HTA utilises its codes of practice to ensure good standards in:

1. Consent
2. Donation of organs, tissue and cells for transplantation
3. Post Mortem examination
4. Anatomical examination
5. Removal, storage and disposal of human organs and tissue
6. Donation of allogeneic bone marrow and peripheral blood stem cells for transplantation.

Codes of Practice can be found on the Human Tissue Authority website at [www.hta.gov.uk](http://www.hta.gov.uk)

## How does this relate to haematopoietic transplantation?

The new Human Tissue Act now covers a range of activities such as the consent, harvesting, processing, storage and transplantation of all peripheral blood stem cells (PBSC) and allogeneic bone marrow (BM).

## Consent and capacity

Appropriate consent must be obtained before the removal, storage or use of bone marrow, PBSC or lymphocytes. Timing is important as consent is needed pre- harvest and with each subsequent donation of bone marrow, PBSC or lymphocytes. The donor must receive a clinical assessment and counselling. The documentation consists of a donor consent form and a declaration from the consultant. The need for transparency with the paperwork means that both forms must be attached to the donor notes and be readily available if requested by the HTA.

Consent is considered appropriate from an adult if the following criteria are fulfilled:

- (a) Sufficient information has been given about the procedure and the related risks
- (b) Consent is given voluntarily without coercion
- (c) The adult is competent to consent.

Consent for children is certainly more complex. In this context a child is defined as being less than eighteen

years. Essentially, a child is only to be considered as a donor for two reasons; firstly a suitable adult donor cannot be found and secondly that the child is competent to consent. The competency issues with children and consent stem from the legal case of Gillick v West Norfolk & Wisbech Area Health Authority (1985). This court ruled that a child can give a valid consent if they display a level of intelligence and understanding, that enables them to comprehend what the procedure involves. Thus, children are assessed by a test of best interests, encompassing medical, psychological, emotional and social aspects. The discussion involves both the child and the person who has parental responsibility.

Since 1st September 2006, donation of BM or PBSC by adults who lack capacity, or children who lack competence to consent, must be approved by the HTA. Such cases must be assessed by an HTA Accredited Assessor first. The person with parental responsibility should be involved in the decision-making even if a child has competence to consent. It is made clear to all involved, that the decision must be the child's own and they must not be acting under duress or be influenced by anyone else. If there is any parental disagreement, the case is referred to court.

Competence refers to a person having the mental capacity by law to consent. The Human Tissue Act does not provide criteria for assessing capacity. This should be assessed on the same basis as having the ability to consent to medical procedures. Practitioners can refer to the Code of Practice on Consent produced by the HTA. The Mental Capacity Act (2005) should also be considered.

HTA Accredited Assessors become involved as a representative of the HTA to ensure that the Human Tissue Act requirements are met, and to be the donor's advocate. Within the Belfast City Hospital, the BMT co-ordinator is the HTA Accredited Assessor, but this could be any other professional within the transplant

team. The HTA Accredited Assessor's role is to assess potential transplant donors to ascertain whether or not they are suitable to give informed consent for donation.

## Regulation

The HTA must regulate all areas of practice related to human tissue banking, post mortem examinations, donation, storage and use of organs or tissues for education, research or audit, for public display or transplant between living persons.

## Storage

In preparation for transplant, harvested stem cells are cryogenically stored. As they are usually stored for more than forty eight hours, they come under the HTA remit and therefore the transplant facility must have a license.

## Licensing

All areas of practice are now subject to regular two yearly inspections to ascertain if the codes of practice are being upheld, the licensing conditions remain the same, and accurate, detailed records are being maintained. Penalties can be enforced by the HTA for breeches, or for those without a license.

## Summary

The HTA, with its dual role of licensing and regulation, plays a vital role in the protection and reassurance of the public, and in maintaining standards in transplant services, which equate to those throughout Europe.

## References

- Department of Health (2004) Human Tissue Act. London: HMSO
- Department of Health (2006) Human Tissue Authority. London: HMSO

# Centre for Cancer Research and Cell Biology (CCRCB), Belfast

The Queen's University haematology research group moved to the new Centre for Cancer Research and Cell Biology (CCRCB) building in June 2007. After seven happy years on University Floor of the Tower Block at Belfast City Hospital the team had outgrown the previous accommodation and were delighted to move into this new purpose built facility.

The haematology group occupy almost the entire ground floor of the new Centre with laboratories and offices sited alongside each other. There are now 26 staff in the research team with members from China, India and Mexico as well as from the UK. The CCRCB was formally opened on 28th November with great ceremony by Senator George Mitchell and the First Minister and Deputy First Minister for

Northern Ireland.

There are four scientific principal investigators who lead research programmes in different areas. Professor Terry Lappin specialises in red cell abnormalities and erythropoietin. Professor Ken Mills has recently joined the group from Cardiff and he is applying microarray technology to look for new prognostic indicators in AML and MDS. Dr Sandra Irvine specialises in CML and is investigating new prognostic markers and therapeutic strategies. Dr Alex Thompson studies the role of the HOX genes in AML. Professor Mc Mullin leads the clinical trials programme and provides clinical input to a number of studies. Mrs Linda Megrath and Mrs Frances Parker continue to keep the team organised and provide essential administrative support. Although the researchers have left the Tower Block the work continues to have a strong clinical basis and is closely associated with the medical and scientific staff in the Belfast Trust.



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to imatinib

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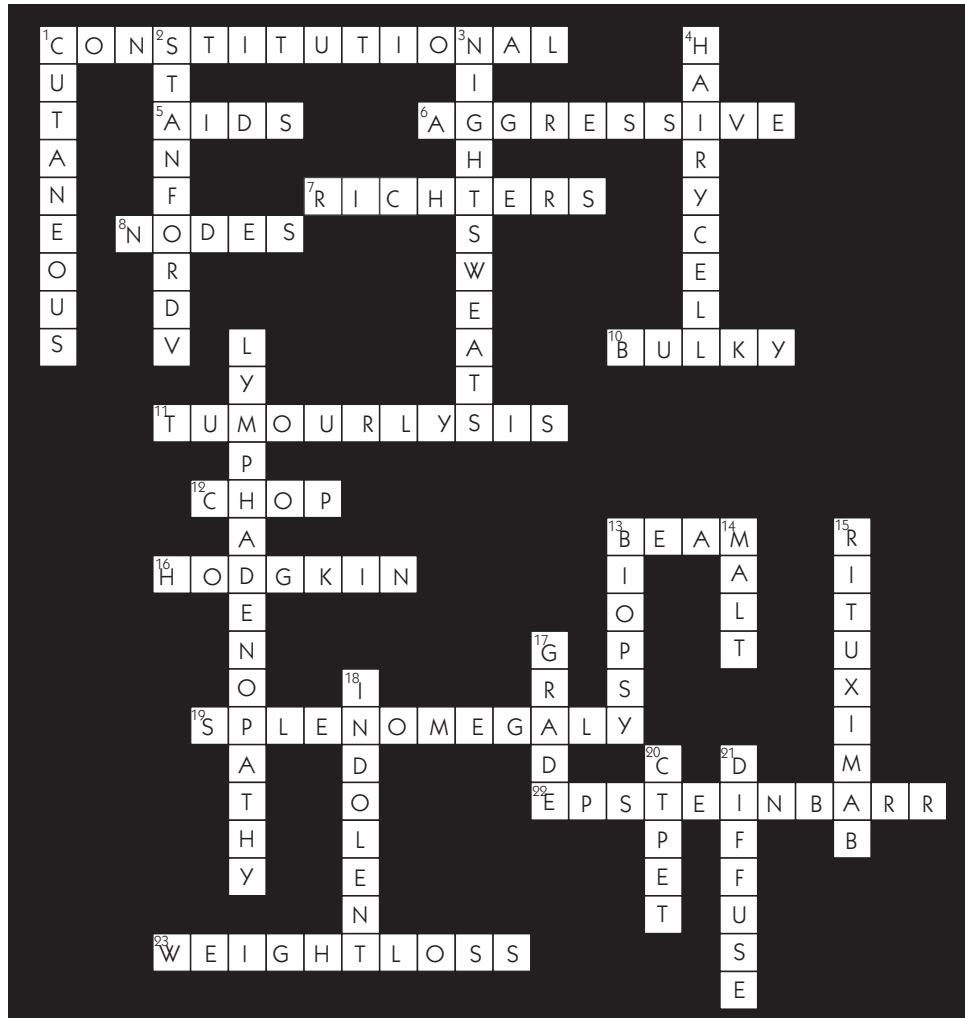
**SPRYCEL® (dasatinib) PRESCRIBING INFORMATION**

See Summary of Product Characteristics before prescribing.

■ **PRESENTATION:** Tablet: 20mg, 50mg or 70mg dasatinib ■ **INDICATIONS:** Adults: chronic, accelerated or blast phase chronic myeloid leukaemia (CML) with resistance or intolerance to prior therapy including imatinib mesilate. Adults: Philadelphia chromosome positive (Ph+) acute lymphoblastic leukaemia (ALL) and lymphoid blast CML with resistance or intolerance to prior therapy. ■ **DOSAGE:** Oral. Chronic phase CML 100mg once daily; accelerated or blast crisis CML or Ph+ALL 70mg twice daily (BID). Swallow whole. Adjust for myelosuppression or adverse events. Children: not recommended. Hepatic impairment: Caution with moderate to severe impairment. ■ **CONTRAINDICATIONS:** Hypersensitivity to dasatinib or any excipient. ■ **WARNINGS AND PRECAUTIONS:** Potential for interaction with medicines metabolised by CYP3A4 (See SPC). Concomitant use of H<sub>2</sub> antagonists and proton pump inhibitors not recommended. Take aluminium/magnesium hydroxide up to 2 hours prior to, or 2 hours after dasatinib. Myelosuppression can occur with advanced phase disease, monitor complete blood count weekly for first two months, then monthly or as clinically indicated thereafter. Severe CNS or GI haemorrhage has occurred. Caution with anticoagulants, or platelet inhibitors. Fluid retention: severe pleural and pericardial effusion, severe ascites, generalised oedema, severe non-cardiogenic pulmonary oedema. Can prolong QT. Caution where QT<sup>c</sup> prolonged. Correct hypokalaemia or hypomagnesaemia. Avoid if hereditary galactose intolerance, Lapp lactase deficiency or glucose-galactose malabsorption. ■ **DRUG INTERACTIONS:** Caution with substances that increase or decrease dasatinib concentrations (see above), H<sub>2</sub> antagonists and proton pump inhibitors, antacids. Dasatinib may alter concentrations of other substances. Caution with CYP3A4 substrates with a narrow therapeutic index. ■ **PREGNANCY AND LACTATION:** Avoid in pregnancy unless necessary. Inform patient of risk to foetus. Sexually active men and women should use contraception. No breast-feeding. ■ **UNDESIRABLE EFFECTS:** Cytopenias (thrombocytopenia, neutropenia, and anaemia), anorexia, headache, haemorrhage, pleural effusion, dyspnoea, diarrhoea, nausea, vomiting, superficial oedema, fatigue, pyrexia, asthenia, skin rash, musculoskeletal pain, infection, dizziness, neuropathy/peripheral neuropathy, cough, abdominal pain, abdominal distension, mucosal inflammation, pain, pruritis, alopecia, arthralgia, myalgia, pneumonia, URTI, herpes viral infection, enterocolitis infection, febrile neutropenia, appetite disturbances, depression, insomnia, dysgeusia, visual disorders, dry eye, conjunctivitis, congestive heart failure, pericardial effusion, arrhythmia, tachycardia, palpitations, flushing, pulmonary oedema, lung infiltration, pneumonitis, colitis, gastritis, oral soft tissue disorder, dyspepsia, constipation, acne, dry skin, urticaria, hyperhidrosis, muscle inflammation, muscular weakness, chest pains, chills, increase or decrease in weight, contusion, sepsis/septicaemia, aplasia pure red cell, transient ischaemic attack, convulsion, somnolence, cardiomegaly, angina pectoris, myocardial infarction, pericarditis, acute coronary syndrome, myocarditis, hypotension, thrombophlebitis, acute respiratory distress syndrome, pancreatitis, upper gastrointestinal ulcer, photosensitivity reaction, pigmentation disorder, rhabdomyolysis, renal failure, Laboratory test abnormalities. See SPC for full list of undesirable effects. ■ **LEGAL CATEGORY:** POM. ■ **PRESENTATION, AUTHORISATION NUMBERS:** 56 tablets (14 x 4 blisters) per carton. 20mg: (EU/1/06/363/004); 50mg: (EU/1/06/363/005); 70mg: (EU/1/06/363/006). ■ **MARKETING AUTHORISATION HOLDER:** BRISTOL-MYERS SQUIBB PHARMA EELG, Uxbridge Business Park, Sanderson Road, Uxbridge, Middlesex, UB81DH. Further information from: Bristol-Myers Squibb Pharmaceuticals Limited, South County Business Park, Leopardstown, Dublin 18. Tel: 1-800-749-749. ■ **DATE OF PI PREPARATION:** August 2007.

# Lymphoma crossword solution

Congratulation to Tracey McGuigan, Research Nurse, Northern Ireland Cancer Clinical Trials Unit, who cracked the Lymphoma crossword and scooped the €50 prize.



## CRYPTIC CLUES

### ACROSS

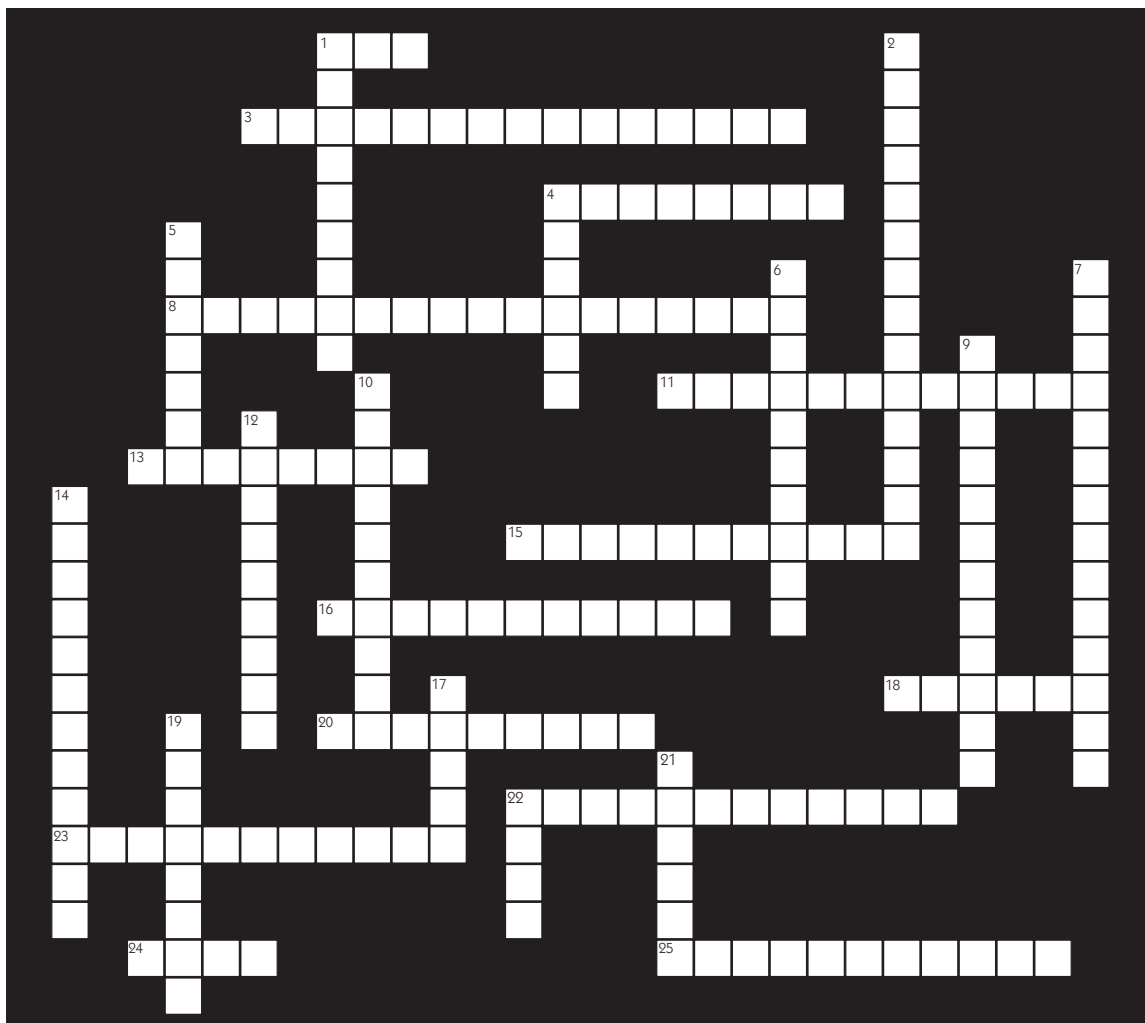
- 1 Political symptoms
- 5 Abets
- 6 Risk of GBH
- 7 This syndrome is off the scale
- 8 Sedon turned
- 10 Large and awkward
- 11 Check U&E in the event of breakdown (two words)
- 12 Type of stick
- 13 Light conditioning
- 16 Is it Thomas or not?
- 19 Size does matter
- 22 German - sounding pub (two words)
- 23 What most women want (two words)

### DOWN

- 1 Skinny disease
- 2 Fifth American University
- 3 Perspiring in shining armour (two words)
- 4 Hirsute compartment (two words)
- 9 Disease at large
- 13 Purchase an opsy
- 14 Wee brown loaf
- 15 May make you chilled before the chop
- 17 Mark
- 18 A borrowed indo
- 20 Scan your dog
- 21 Spread around

# €50 Prize winning crossword

This crossword is specific to **Anaemia** (of varying types) so no matter what sub speciality of haematology you work in it shouldn't be a problem to you! There are a couple of easy clues included to get you going. Best of luck and make sure to get your entry in before **31st January 2009**. The first randomly selected entry drawn after that date will be eligible for the €50 prize.



## CLUES ACROSS

- 1 This nutrient is one short of unlucky
- 3 Cool clumps (2 words)
- 4 This wee weasel is in
- 8 Pale and spiteful (2 words)
- 11 Erin and Sidney with the haemo prefix
- 13 Stained sclera
- 15 Across the combination
- 16 This cell will dream of having haem!
- 18 A gaseous mobile network
- 20 A test of old British currency
- 22 Uncomfortable irregularity
- 23 The archaic middle word in MCV
- 24 52 of these P.A.
- 25 aka RBC

## CLUES DOWN

- 1 Two boys names together
- 2 A three letter hormone
- 4 The wee horse was hungry
- 5 This may cause a shade of azure
- 6 I'm having a breakdown!
- 7 You'll have wrinkled clothes if this is the case (2 words)
- 9 When I grow up I want to be a red cell
- 10 Obese cell
- 12 Inherent factor
- 14 Helps assimilate iron (2 words)
- 17 Often served with onions
- 19 Leave me breathless...
- 21 Scythe
- 22 An old bucket

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NAME \_\_\_\_\_ JOB TITLE \_\_\_\_\_

WORK ADDRESS \_\_\_\_\_

CONTACT NUMBER \_\_\_\_\_ Please send entries to Caroline McCaughey, 50 Elmwood Avenue, Belfast. BT9 7ST