## ANNUAL REPORT 2012

Irish Blood
 Transfusion Service
 Seirbhís Fuilaistriúcháin na hÉireann

"maintaining high standards of quality and service in 2012."

Cover photograph of The Convention Centre, Dublin taken as part of the "Turn Dublin Red" campaign on World Blood Donor Day 2012

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Irish Blood Transfusion Service

"Next year will pose its own set of challenges, but I'm confident that our staff and our donors will rise to them."

# Chairperson's Foreword

It's been a hard year for the country, and it's not been easy for the IBTS. Like every other state agency, we have had to tighten our belt, while still delivering a safe, secure and reliable blood supply. Thanks to the generosity of our donors and volunteer organisers, and the dedication and hard work of all our staff, we've been able to do just that. On behalf of the whole Board, thank you to everyone involved.

We've made big changes over the year, with some staff members moving on, blood donation testing being centralised in the National Blood Centre, and our concentrates resale business transferred to St. James's. Next year will pose its own set of challenges, but I'm confident that our staff and our donors will rise to them.

I've had the privilege of meeting many of our longterm donors at our regular Donor Award Ceremonies. It's a real honour to be able to thank them in person for their time, their dedication, and the gift they give to patients all over Ireland, every day of the year.

Finally, I'd like to thank my predecessor, Katharine Bulbulia, for her unobtrusive help and support in making such a smooth transition, and our CEO Andrew Kelly, and his team for prompt effective briefings, and patiently answering all my many questions. It has been a tough year for all my colleagues on the Board, and I want to thank them all for their support, their dedication and their hard work.

### Professor Anthony Staines Chairperson

# **Our Values**

- Excellence in Service
- Honesty
- Respect
- Learning
- Accountability
- Teamwork

# Chairperson's Report

Report of the Chairperson of the Irish Blood Transfusion Service regarding the assessment of internal financial controls of a State body for the year ended 31st December 2012, in accordance with Appendix V of the Revised Code of Practice for the Governance of State Bodies

- 1. I, as Chairperson, acknowledge that the Board is responsible for the Body's system of internal financial control.
- The IBTS system of internal control can provide only reasonable and not absolute assurance against material error, misstatement or loss.
- The Board confirms that there is an ongoing process for identifying, evaluating and managing significant risks faced by the IBTS. This process is regularly reviewed by the Board via reports from the Chief Executive.

i. Management are responsible for the identification and evaluation of significant risks applicable to their areas of business together with the design and operation of suitable controls. These risks are assessed on a continuing basis and may be associated with a variety of internal or external sources including control breakdowns, disruption in information systems, natural catastrophe and regulatory requirements.

ii. Management meets twice monthly on operational issues and risks and how they are managed. The Executive Management Team's role in this regard is to review on behalf of the Board the key risks inherent in the affairs of the IBTS and the system of actions necessary to manage such risks and to present their findings on significant matters via the Chief Executive to the Board.

iii. The Chief Executive reports to the Board on behalf of the Executive Management on significant changes in the work of the IBTS and on the external environment which affects significant risks. Where areas for improvement in the system are identified the Board considers the recommendations made by the Executive Management Team.

iv. The Director of Finance provides the Finance Committee, which is a sub-committee of the Board, with monthly financial information which includes key performance indicators. This was not operating for 7 months of 2012.

v. An appropriate control framework is in place with clearly defined matters which are reserved for Board approval only or, as delegated by the Board for appropriate Executive approval. The Board has delegated the day-to-day management of the IBTS and established appropriate limits for expenditure authorisation to the Executive. The Chief Executive is responsible for implementation of internal controls, including internal financial controls.

vi. The system of internal financial control is monitored in general by the processes outlined above. In addition, the Audit and Compliance

## Chairperson's Report

Committee of the Board reviews specific areas of internal control as part of their terms of reference.

4. The Audit and Compliance Committee of the Board have satisfactorily reviewed the effectiveness of the system of internal control on behalf of the Board. The Audit and Compliance Committee carried out a formal review of these systems in respect of 2012 at its meeting on 29th April 2013.

## Additional Reporting Requirements

## Compliance with the Code of Practice for the Governance of State Bodies

The Board is committed to complying with the relevant provisions of the Revised Code of Practice for the Governance of State Bodies, published by the Department of Finance in 2009.

A code of business conduct for the Board and an employee code of conduct have been put in place. The Board is committed to review these codes regularly.

The Board has adopted a detailed travel and subsistence policy which complies with all aspects of Government travel policy.

The IBTS Board reviewed reports on internal controls during the year along with regular reviews of the reports of the Irish Medicines Board on operational and compliance controls and risk management. The Board will continue to review these reports and to work closely with the IMB to ensure the highest international standards.

The IBTS has complied with disposal procedures, as outlined in the 'Revised Code of Practice for the Governance of State Bodies'. The IBTS complies with all relevant obligations as defined under Irish taxation law.

#### **Corporate Governance**

The Board's policy is to maintain the highest standards of corporate governance, in line with generally accepted policies and practices. The Board is accountable to the Minister for Health.

The Board has a manual for Board members. The Board has adopted the 'Revised Code of Practice for the Governance of State Bodies' as published by the Department of Finance in June 2009.

#### Workings of the Board

The Board is comprised of twelve members including a non-executive Chairperson appointed by the Minister for Health.

The Board met on 11 occasions for ordinary meetings during the year. Attendance by Board members was as follows:

Members of the Board	Jan	Feb	Mar	April	Мау	June	July	Sept	Oct	Nov	Dec
Ms Katharine Bulbulia (Chairperson)*	1	1	1	1	1						
Prof Anthony Staines (Chairperson)**						1	1	1	1	1	1
Ms Jane O'Brien	1	$\checkmark$	1	$\checkmark$	1	$\checkmark$	1	$\checkmark$	√	√	√
Mr Sean Wyse*	1	$\checkmark$	1	1	1						
Mr David Lowe*	1	$\checkmark$	1	1	1						
Mr Dave Keenan*	1		1	$\checkmark$	1						
Dr Paolo Rebulla	1	$\checkmark$	1	1	1	~	1	~	1	~	1
Ms Ann Horan*	1	$\checkmark$		√	1						
Ms Sinead Ni Mhaille*		$\checkmark$	1		1						
Dr Paul Browne‡	1	$\checkmark$	1	1	1						
Dr Lelia Thornton		$\checkmark$	1	1	1	$\checkmark$	1	$\checkmark$	1	~	~
Dr Hilary O'Leary#	1		1	1				~			
Ms Marie Keane*	1	$\checkmark$		$\checkmark$	1						
Dr Conor McGrane**						√			1	~	1
Mr John Cregan‡‡											1
Mr Brian O'Mahony***							1	~	1	~	

Term of office ended on 31st May 2012 Term of office commenced on 1st June 2012 Term of office commenced on 11th June 2012 Resigned on 17th September 2012 \*\*

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- Term of office ended on 31st May 2012, reappointed on 10th December 2012 ‡
- ‡‡ Term of office commenced on 10th December 2012

All members receive appropriate and timely information, to enable the Board to discharge its duties. The Board takes appropriate independent, professional advice as necessary.

Guidelines for the payment of Board member fees and expenses are observed.

## Chairperson's Report

		Salary 2012	Expenses 2012
		€	€
Katherine Bulbulia	Chairperson	8,603	2,047
Professor Anthony Staines	Chairperson	-	577
Dr Paul Browne	Boardmember	-	-
Ann Horan	Boardmember	5,018	-
Marie Keane	Boardmember	-	79
Dave Keenan	Boardmember	5,018	-
David Lowe	Boardmember	5,018	-
Sinead Ni Mhaille	Boardmember	5,018	-
Jane O'Brien	Boardmember	11,970	-
Dr Hilary O'Leary	Boardmember	-	-
Dr Paolo Rebulla	Boardmember	11,970	4,947
Dr Lelia Thornton	Boardmember	-	91
Sean Wyse	Boardmember	5,018	-
Conor McGrane	Boardmember	6,491	-
Brian O'Mahony	Boardmember	-	-
John Cregan	Boardmember	-	-
		64,124	7,741

## Guidelines for the appraisal and management of Capital Expenditure Proposals

The Board is committed to complying with the Guidelines for the Appraisal and Management of Capital Expenditure Proposals issued by the Department of Finance in July 1994, (revised Jan 2005) and Circulars 02/09 and 02/11 relating to arrangements for ICT expenditure in the Civil and Public Service.

The IBTS has also developed its own formal project management methodology, suitable for adaptation, depending on the size of the project in question.

The Board has activated a committee structure to assist in the effective discharge of its responsibilities.

#### **Remuneration Committee**

The Board has established a sub-committee to deal specifically with matters regarding the salary and performance of the Chief Executive. The Board complies with Government policy on pay for the Chief Executive and employees. The Board also complies with guidelines on the payment of director's fees. The Chief Executive's salary in 2012 was €159,851.

#### **Medical Advisory Committee**

The Medical Advisory Committee is comprised of the medically qualified members of the Board and the medical consulting staff and meets eleven times a year. Its function is to monitor developments relevant to the field of transfusion medicine and related fields, to inform the Board of any such developments and to advise the Board on appropriate action.

#### **Finance Committee**

The Finance Committee met two times during the year and is comprised of three members of the Board. It is also attended by the Chief Executive, Medical & Scientific Director, Director of Finance and Management Accountant. The Committee may review any matters relating to the financial affairs of the Board. It reviews the annual capital and operating budgets, external audits by the Comptroller and Auditor General, financial and management accounts, financial KPIs, capital expenditure, working capital and cash flow. It also reviews business planning, costing exercises, procurement, insurance arrangements, contracts, banking, financing arrangements and treasury policy. The Committee reports to the Board on management and financial reports and advises on relevant decision-making. The Finance Committee operates under formal terms of reference which are reviewed by the Board regularly.

#### Audit & Compliance Committee

The Audit and Compliance Committee met three times during the year and is comprised of three members of the Board and two independent external members. It is also attended by the Chief Executive, the Medical & Scientific Director, the Director of Finance, the Operations Director, Director of Quality & Compliance, the Management Accountant and the Internal Auditor. The Committee may review any matters relating to the financial, regulatory or compliance affairs of the Board. It reviews the annual financial statements, reports of the Internal Auditor, quality reports, the accounting policies, compliance with accounting standards and the accounting implications of major transactions. The external auditors meet the Committee to review the results of the annual audit of the Board's statutory financial statements. The Audit & Compliance Committee operates under formal terms of reference, which are reviewed by the Board regularly.

#### **Risk Register**

The risk register identifies various types of risks including strategic, reputational, clinical, IT, financial and operational risks to the organisation and the existing controls and further actions necessary to minimise the impact on the organisation, in the event of the risk occurring. The Risk Register is divided into Organisational, Clinical and IT Risk Registers. The organisational risk register is reviewed and updated by the Executive Management Team. The Clinical Risk Register is reviewed by the medical consultants and the IT Risk Register is reviewed by the Chief Executive and the IT Manager .

This monitoring ensures that the identified risks and controls are current and that new and emerging risks are identified and controlling measures put in place.

#### Going Concern

After making reasonable enquiries, the directors have a reasonable expectation that the IBTS has adequate resources to continue in operational existence for the foreseeable future. For this reason, they continue to adopt the going concern basis in preparing financial statements

#### **Internal Control**

The Board is responsible for internal controls in the IBTS and for reviewing their effectiveness. The Board's system of internal financial control comprises those controls established in order to provide

## Chairperson's Report

reasonable assurance of:

- The safeguarding of assets against unauthorised use or disposition; and
- The maintenance of proper accounting records and reliable financial information used within the organisation.

The key elements of the Board's system of internal financial control are as follows:

- A comprehensive system of financial reporting
- Annual Budget prepared and presented to both the Finance Committee and the Board
- Monthly monitoring of performance against budgets by Finance Committee and Board
- Sign off by budget holders on individual budgets
- Budget reviews with budget holders
- Clearly defined finance structure
- Appropriate segregation of duties
- Clear authorisation limits for capital and recurring expenditure approved by the Finance Committee
- Key financial processes are fully documented in written procedures
- Regular stock takes and reconciliations carried out by staff independent of stores staff
- Financial system possesses verification checks and password controls
- Despatch dockets for issues of products are checked and reconciled to ensure all of the Board's activities are fully billed
- Regular monitoring of credit control function
- Purchase orders signed by Purchasing Officer or authorised substitutes
- Stock items are requisitioned by means of automatic ordering

- All non stock invoices signed and coded by budget managers or their authorised signatories
- All stock invoices are independently matched with stores GRN and purchase order
- Payment verification checks of supplier invoices by staff independent of accounts payable staff

The Board is aware that the system of internal control is designed to manage rather than eliminate the risk of failure to achieve business objectives. Internal control can only provide reasonable and not absolute assurance against material mis-statement or loss.

### Statement of Board Members' Responsibilities

The Board is required by the Blood Transfusion Service Board (Establishment) Order 1965, to prepare financial statements for each financial year which, in accordance with applicable Irish law and accounting standards, give a true and fair view of the state of affairs of the Irish Blood Transfusion Service and of its income and expenditure for that year. In preparing those financial statements, the Board is required to:

- Select suitable accounting policies and then apply them consistently;
- Make judgements and estimates that are reasonable and prudent;
- Disclose and explain any material departure from applicable accounting standards;
- Prepare the financial statements on the going concern basis unless it is inappropriate to presume that the Irish Blood Transfusion Service will continue in business.

The Board is responsible for keeping proper books of account, which disclose with reasonable accuracy

at any time, the financial position of the Irish Blood Transfusion Service and to enable it to ensure that the financial statements comply with the Order. It is also responsible for safeguarding the assets of the Irish Blood Transfusion Service and hence taking reasonable steps for the prevention and the detection of fraud and other irregularities.

#### **Commercially significant developments**

#### Transfer of blood products

The transfer of responsibility for the purchase of factor concentrates for the treatment of blood clotting disorders to St James's Hospital was completed in April 2012.

### Centralised testing

The transfer of virology testing from the Cork Centre to the National Blood Centre was successfully completed in July 2012. This yielded a saving of €628K.

#### Voluntary redundancy

The IBTS introduced a voluntary redundancy programme in 2012. A total of 28 staff applied of which 17 staff were offered redundancy, leading to a annualised payroll saving of €969K.

### **Professor Anthony Staines**

Chairperson

"The IBTS maintained the high standards of quality and service in 2012 despite the ongoing constraints in resources."

# Chief Executive's Report



The IBTS maintained the high standards of quality and service in 2012 despite the ongoing constraints in resources. Little did we think that we would be headed into our 6th year of reducing resources and still no end in sight.

During 2012 there was continuous change in the IBTS. There was significant changes to the membership of the Board, we transferred the recombinant business, we consolidated virology testing, we introduced selective testing for the first time when we implemented testing for West Nile Virus, we developed and implemented an electronic ordering system, we commenced the replacement of our Blood Establishment Control System and we began using the Balanced Scorecard methodology to develop the next Strategic Plan. These are only the highlights. It was indeed a very busy and challenging year.

Outside of the financial challenge the biggest issue that the organisation had to deal with during 2012 was the loss of donations due to the inability to meet the Directive criteria. This caused many problems for our clinic teams and also for the hospitals because of the failure to maintain a consistent supply. The situation became so problematic that we sought a deviation from the Competent Authority to take donations in the borderline for Hb measurement. This was agreed to for a period of a year and on 1st October 2013 the IBTS must comply with the Directive criteria for Hb levels for donation. This is a very significant challenge and will require a multifaceted strategy if this is to be achieved. This will require a multi-disciplinary team to work on the different strands so that we will comply with the

Directive from 1st October 2013. We carried out a review of our Quality Department and benchmarked against three other blood transfusion services. The report will form the basis for the implementation of new structures and processes which will drive continuous improvement across the business. We also reviewed our Administrative Systems and how we deliver administrative services across the organisation. The outcome of this review is due to be published early in 2013.

For some time I have had the intention to use the Balanced Scorecard methodology as a means of developing our Strategy map and our Strategic Plan 2013 – 2016. We engaged a well respected consultant in this field to begin this process. We also received great support from Bord Gais who have been using this tool very successfully for a number of years and also from Canadian Blood Services in our quest to optimise the use of this tool. We had completed the work on the Strategic Plan by year end and we then began the consultation process with key stakeholders. This will be published by Quarter 2 2013.

The one issue where no progress can be reported is securing the appropriate funding of the IBTS pension scheme. This issue needs to be resolved and is causing unnecessary difficulties for staff and is deflecting energy from the management of other issues.

Since 2008 the IBTS has reduced its cost base by 21% and there has been a 10% decrease in the number of staff employed. This is a great achievement and the plaudits rest on the shoulders

## Chief Executive's Report

of all staff who have contributed to this result and maintained the very high standards of quality and service. There is a point at which there is no scope for further reductions in staffing and there is a real danger that we will not be able to attract staff of the appropriate calibre with the recruitment policies currently being adopted.

I would like to express my sincere appreciation to the members of the Executive Management Team and to all staff across the organisation who have continued to deliver for patients and donors. Without their professionalism and commitment the IBTS could not continue to deliver a safe and high quality transfusion service.

## Andrew Kelly

Chief Executive



"IBTS looks forward from a position of strength. In 2013 the new health groupings into hubs or trusts will provide opportunities for improvements in practice and even greater progress in effective blood transfusion."

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# Medical and Scientific Director's Report



The prime duty of a blood transfusion service is the continuity of supply of safe blood components and related services. During 2012 IBTS was able to maintain supply and we were not advised of any operations being cancelled or delayed. With regard to the safety of the blood supply, very few blood donations were found to be positive for the main conditions for which we test - HIV/AIDS and hepatitis viruses B and C – and no confirmed cases of transfusion transmitted viruses were reported to us. For a modest sized blood service this is as to be expected but IBTS has maintained its policy of maintaining a very high degree of safety, using a range of tests with a very high degree of sensitivity. A new test was introduced by IBTS in 2012. For some years donors who have travelled recently to areas where West Nile Virus (WNV) is known to be occurring have had to be excluded from donation. Since this includes the United States and increasing areas of Europe during the summer months IBTS decided it would be more efficient and improve the supply of blood if donors could be tested for WNV. No positive results were found but almost 2000 donations were taken that would otherwise have been refused. This is a service to those donors who no longer need to come back in a few weeks, and helps IBTS keep supplies up during the summer holiday season.

IBTS constantly monitors the blood safety profile of other countries, and is helped in this by being a member of the Emerging Infectious Disease Monitor, set up by the European Blood Alliance. A monthly conference call brings together countries throughout Europe, North America and Australia and New Zealand to share current evidence of disease spread that might, even remotely, cause a concern to blood safety. At the time of writing, conditions such as dengue fever – a tropical infection spread by mosquitoes - and Hepatitis E - a food borne virus with potential for blood spread - are important concerns. Other worries from a few years ago are reducing in impact, but there is no room for complacency. The variant CJD outbreak in the UK is at a low level at present, with no new cases diagnosed in 2012. But for a condition that can take over ten years incubating there will need to be some years more before some of the main preventative measures can be changed. However, in the UK, it was decided in December not to proceed with special filters to reduce the vCJD risk from blood. IBTS, together with the HSE and the Department of Health, will continue to watch carefully how the UK, in particular, due to its much greater number of cases, deals with this potentially deadly condition.

The past twenty years have all been about safety of the blood donation to protect the recipient. None of this is going to change, but over the past few years there has been more interest in the donor, and what the effect of regular donation might have on some of them. Anyone who has been fortunate enough to attend blood Donor Award Ceremonies, as I have in Scotland and Ireland, will remember the long lines of fit and healthy donors coming forward for their awards. Most of these are men, but there are many women too who manage to keep donating over the years despite having family commitments and all of the needs for nutrition and iron that go with that.

Iron levels in donors are very important, and as a blood donor organisation as well as a transfusion

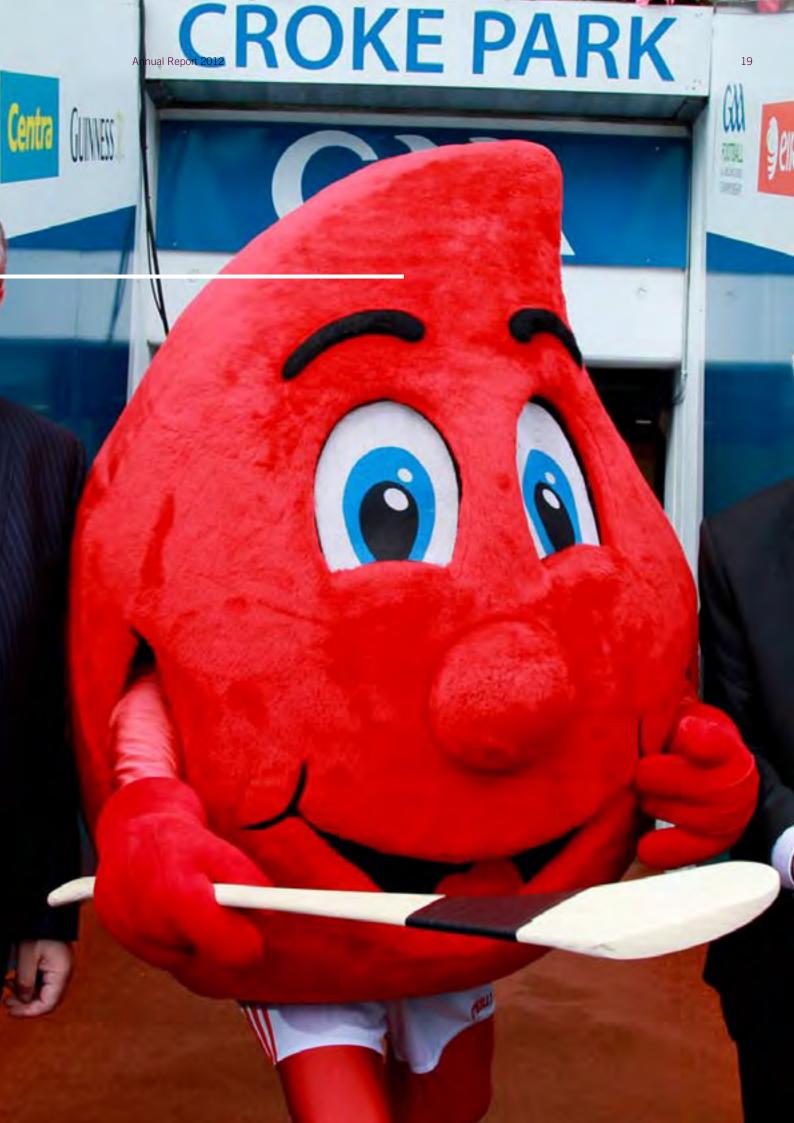
## Medical & Scientific Director's Report

service we have a duty to ensure all our donors remain fit and well. This we are doing through a number of initiatives to improve awareness of healthy diets and iron levels in our donors. In a few people, too much iron can be a problem and Ireland has a high number of people with an inherited tendency to high iron levels called hereditary haemochromatosis – HH for short. For some time now, IBTS has provided a donor clinic in south Dublin for people with HH who are otherwise well. In the coming year we hope to extend this service to people elsewhere in Ireland, which will both help IBTS meet the transfusion demands of our hospitals, and also help provide a service to people with HH.

IBTS looks forward from a position of strength. In 2013 the new health groupings into hubs or trusts will provide opportunities for improvements in practice and even greater progress in effective blood transfusion. Blood usage appears to be falling throughout the developed world, despite aging of populations and the need for more surgery. Techniques in avoiding blood loss, and the awareness that blood is necessary only when it will clearly save or improve the quality of life, have worked to reduce usage. Even major surgery may be performed with no real likelihood of bleeding, although of course no surgeon or anaesthetist will allow an operation to go ahead unless blood is available! So for 2013 and onwards it is likely to be a period of more detailed assessment and care of blood donors, improved targeting of precise transfusion therapy for patients , and a continued emphasis on safety throughout the whole process.

#### **Dr Ian Franklin**

MBChB, PhD, FRCP [Lond; Glas; Edin], FRCPath. Medical & Scientific Director MCRN 401650



"2012 was a challenging year in maintaining an adequate blood supply, however, thanks to the generosity of our donors we managed to meet the needs of patients in our hospitals by supplying blood and blood components on an on-going basis."

T. P. AUL

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# Operations



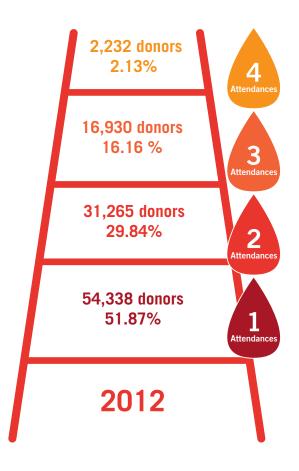
## **Blood Supply**

2012 was a challenging year in maintaining an adequate blood supply, however, thanks to the generosity of our donors we managed to meet the needs of patients in our hospitals by supplying blood and blood components on an on-going basis. In total 104,765 donors (an increase of 2035 donors or 1.98% on 2011) attended our clinics and gave 141,350 donations (a decrease of 5189 donations or 3.5% on 2011). The reduction in donations was due to a higher deferral rate of 18.49%, which was primarily due to the strict application of the required blood haemoglobin levels between March and August 2012 which saw the deferral rate rise to 25% on occasions.

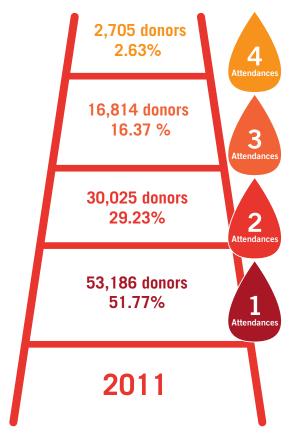
In September 2012, in the interest of maintaining an adequate blood supply, the Irish Medicines Board gave the IBTS a derogation from the required blood haemoglobin levels for a 12 month period to allow for a robust Donor Management Programme for donors with low or borderline blood haemoglobin levels to be developed. In addition it will be necessary to develop donor recruitment and retention initiatives to counteract the reduction in donations due to a higher deferral rate.

## Donor Loyalty

In such circumstances, we rely on the continuing support of our regular donors in attending our clinics more frequently. The donor loyalty ladders below show that the number of donors attending our clinics on one, two and three occasions in 2012 increased by 2.2%, 4.1% and 0.7% respectively. If we are to maintain an adequate blood supply in 2013 we will need to continue this positive trend and get donors to move up one rung on the donor loyalty ladder to two, three and four attendances.







## First Time Donors

In 2012 there were 15,318 donors who attended one of our clinics for the first time. This was an increase of 8.7% on 2012. Of these donors 8,019 or 52.4% were in the 18-24 age group. The IBTS welcomes all of these donors and looks forward to seeing them on a regular basis in the future.

It is important that these first time donors are retained and become our regular donors of the future. Currently, only 36% of our first time donors reattend within 12 months of their first attendance. This is significantly lower than the retention rate for regular donors, which is > 60%.

Consequently in August 2012 we started a pilot project with a view to contacting all temporarily deferred first time donors the day after their first attendance to discuss their experience and explain to them what will happen when there deferral has expired. This was very well received by donors and it is hoped it will contribute to a significant improvement in the first time donor retention rate. It is planned to expand the project to contact more first time donors in 2013.

## **Donor Awards**

Each year the IBTS acknowledges the contributions that our regular donors make to maintaining an adequate blood supply throughout the year by hosting donor award ceremonies around the country at which donors are presented with their gold drop (50 donations) and porcelain pelican (100 donations).

In 2012 there were 8 Donor Award Ceremonies hosted around the country where 916 donors received their gold drops and 209 donors received their porcelain pelicans. As always these were very enjoyable occasions, which presented the board and staff of the IBTS the opportunity to meet with and thank the donors for their many valuable donations. In addition, it presents the opportunity for donors to hear from recipients or the parents of recipients about the difference that donations like theirs have made to their lives and their children. Annual Report 2012

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# World Blood Donor Day 2012

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World Blood Donor Day falls on June 14th and aims to raise public awareness of the importance of blood donation and to thank regular blood donors for their commitment to saving lives.

In 2012 the Irish Blood Transfusion Service asked some landmark buildings in Dublin City to "Turn Dublin Red" by lighting up their building in red lights on Thursday June 14th in support of blood donors across the country.

The Convention Centre, Dublin's City Hall, The National Concert Hall, Lafayette House beside O'Connell Bridge and the Irish Architecture Archive "went red" in honor of Ireland's many communities of blood donors.

## Operations



## Blood Buddies Campaign Launched

In June 2012 we launched a new campaign which aims to increase public awareness of blood types and to encourage donors to give blood for their "Blood Buddies", those who share their blood group and are in need of a blood transfusion.

Our aim is to ensure a safe and sustainable blood supply by creating a community of "Blood Buddies". The idea behind being a Blood Buddy is the belief that connecting with others, even people you don't know, is important that we all share more in common than we realise, and when we share the same blood type that makes us Blood Buddies.

We have eight "buddies" to represent each blood group so look out for them throughout the year in press, online and outdoor ads.



## Donor Recruitment/Retention Initiatives

## GAA Partnership

On 16th June it was agreed at the Coiste Bainisti/Ard Chomhairle meeting that a partnership between the GAA and the Irish Blood Transfusion Service would be established.

The IBTS are starting their campaign in Connacht. The IBTS recently presented to the Connacht GAA Council and received the Council's backing and support for this relationship. The Council agreed to inform all clubs in Connacht of their support.

The IBTS collects at 36 venues in Connacht and wants to link the 140 GAA clubs to these venues with a view to making it easier for those interested in giving blood by providing information on how this can be done (leaflets, clinic visits, ease). Our aim is to make giving blood as informed and easy as possible for those involved in the GAA community.

We have decided that the official tagline to be used is that of the IBTS logo – giveblood.ie and to include the tagline – supported by the GAA.

We are looking for commitment and support from GAA members to give blood as it is needed. We need an additional 20/30 donors per clinic, which is where we think the GAA can support us. We will be able to provide support in this respect which can include material for club websites, social media channels, webtext, email, leaflets, posters etc.



Our aim is to increase clinic attendance in Connacht by 4,000 – 5,000 donors per year. With similar attributes like community spirit, pro-social commitment and volunteering we believe people involved with the GAA are key members of the community to help us in our continued mission of maintaining a safe and sustainable blood supply.

## Haemochromatosis

Since June 2007 the IBTS has been accepting donations from people with haemochromatosis on Fridays in the Stillorgan Clinic. To date 4,663 donations have been taken at these clinics.

In 2012 the IBTS has been in discussions with the HSE about the further development of the programme and its expansion to our fixed clinics in D'Olier St and St Finbarr's Hospital, Cork in 2013.

It is anticipated that this programme will contribute in excess of 5,000 donations to the national blood supply on an annual basis.

## Garda Cycle

Arising from the death of his son, due to Leukaemia, Garda Stephen Roe of Anglesea Street Garda Station has organised a Cycle from Malin Head to Mizen Head to raise awareness and encourage more people to give blood.

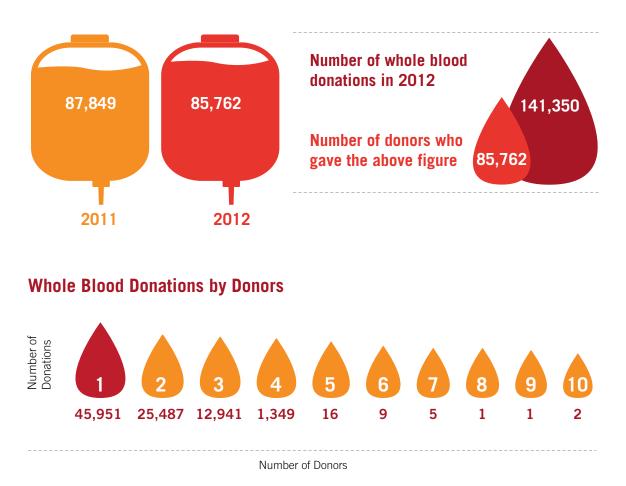
The cycle will take place from 27th to 30th April, 2013 and sponsorship for the cycle is by way of becoming a Blood Donor. 12 Garda Cyclists will participate, joined by Chief Supt. Michael Finn and Inspector Finbarr O'Sullivan. The cyclists will be welcomed back at the City Hall in Cork on 30th April by Lord Mayor, Cllr. John Buttimer.

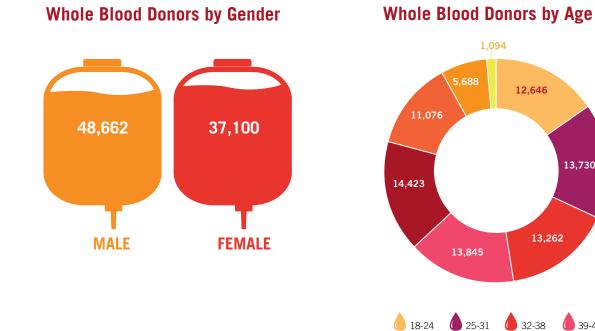
The Garda Cycle was promoted from October 2012 and by the end of the year 156 donors had already attended clinics nationwide. It is hoped that the cycle in April 2013 will result in up to 1000 people committing to giving a blood donation.

"The Garda Cycle was promoted from October 2012 and by the end of the year 156 donors had already attended clinics nationwide."

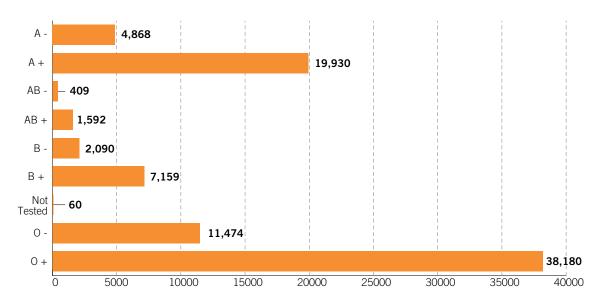
# **Donor Statistics**

## Donors 2011 vs 2012





Whole Blood Donors by Bloodgroup



46-52

53-59

60-66

13,730

39-45

67-74

# **Hospital Services**

Blood, Blood Components & Blood Products Issued				
Product	2012	2011		
Red Cells & Whole Blood	133,199	135,963		
Platelets - Therapeutic Doses	24,127	24,735		
Frozen Plasma	277	266		
Octaplas	20,961	22,890		
Cryoprecipitate	160	74		
Factor VIIA (xIU) *	-	400		
Factor VIII Recombinant (x IU) *	13,349,000	36,300,000		
Von Willebrand Factor (x IU) *	304,200	790,600		
Factor IX Recombinant (xIU) *	3,684,250	11,935,750		
Prothromplex (x IU) *	291,600	787,200		
Factor XIII *	5,500	7,000		
Plasma For IVD Use (Litres)	31,798	38,422		

\* The figures for 2012 for factor concentrates for the treatment of blood clotting disorders reflect issues

from January to April as the responsibility was transferred to St James's Hospital from April 30th 2012.

# Testing

# Nucleic Acid Testing (NAT) Laboratory

#### The Nucleic Acid Testing (NAT) laboratory

is located at the NBC and provides national testing of blood donations from all IBTS centres. NAT detects very low levels of viral RNA/DNA that may not be detectable through current approved serological assays during the very early stages of an infection, the pre-seroconversion window period.

The NAT laboratory performs Individual Donation (ID)-NAT using the Tigris platform in conjunction with the Ultrio Plus HIV-1/HCV/HBV assay. The Tigris instrument is a fully automated closed system for NAT testing of individual donations with the Procleix Ultrio Plus assay. The Procleix Ultrio Plus assay is a multiplex TMA assay for the detection of Human Immunodeficiency Virus type 1 (HIV-1) RNA, Hepatitis C virus (HCV) RNA and Hepatitis B virus (HBV) DNA in human plasma. The Ultrio Plus assay was introduced by Novartis Vaccines and Diagnostics as a second generation triplex assay to specifically increase the sensitivity for HBV DNA detection compared to the Ultrio assay (in routine use from April 2009 to November 2011). The Ultrio Plus assay includes new Target Enhancer Reagent (TER) which provides optimal viral disruption, amplification and detection of HBV DNA, thus providing the blood supply with an additional margin of safety.

The decision was taken by the IBTS to implement selective testing of blood donors for West Nile Virus (WNV) RNA in the NAT laboratory from the 1st May 2012. The Procleix West Nile Virus (WNV) assay reliably detects low level WNV RNA in blood donations using the Tigris platform. Prior to its introduction, donors travelling to a WNV at risk area within the past 28 days were deferred from donating. Due to the increasing spread of WNV across Europe, as well as the pre-existing WNV risk in the North America, selective testing of blood donations for WNV was introduced as an alternative to the 28 day geographical donor deferral for the European WNV season (May to November).

An archive sample is retained on all donations. Every donation collected in 2012 was tested within the laboratory and there was no requirement to invoke the External Contingency testing plan which the IBTS has with the Scottish National Blood Transfusion Service (SNBTS).

Quality Control of NAT testing ensures accurate monitoring of the analytical sensitivity and reproducibility of NAT Blood screening assays. External Quality Control samples (EQCs) are also used to monitor technical proficiency and consistency in the sensitivity of reagent batches. The Novartis Procleix assays include Calibrators (Negative, HIV-1, HCV, HBV), Bracket Controls (Negative, HIV-1, HCV, HBV) and Internal Control (IC). IC is added to each test sample via the addition of working Target Capture Reagent (wTCR). The IC is used to control sample processing, amplification and detection steps and used to ensure all manufacturer testing processes are operating correctly. Tigris Bracket Controls are used following testing of every 100 samples in each worklist. Calibrator results must meet assay specifications.

Interlaboratory comparisons using EDCNet software (National Reference & Serology Laboratory, NRL, Australia, www.nrlqa.net) and participation in External Quality Assurance Schemes (EQAS) in 2012 allow us to perform peer review with other Tigris/Ultrio Plus users and non-users of NAT assays worldwide. The NAT laboratory is committed to continuous improvement of the NAT process, as demonstrated by implementing Corrective and Preventative actions resulting from Quality Incident Reports and Internal Audit reports.

# Virology

#### The virology laboratory

has seen major changes in 2012 as all IBTS Virology testing in Ireland was consolidated at the National Blood Centre (NBC) in Dublin in June.

The Virology laboratory receives a clotted serum sample from each donor taken at the time of donation which is identified with a unique bar code identifier and all samples from the blood donor clinics are transported to the NBC overnight and tested the following day.

The sample is tested for the presence of specific viral markers that may be transmitted by transfusion. Approximately 155,000 donations were tested in 2012.

There was no requirement to invoke the External Contingency testing plan which the IBTS has with the Scottish National Blood Transfusion Service (SNBTS) in 2012.

The following serology tests are carried out in the virology laboratory and are mandatory for all donations.

- Hepatitis B surface antigen (HBsAg) and antibody to Hepatitis B core
- antibody to Human Immunodeficiency Virus 1/2
- antibody to Hepatitis C virus
- antibody to Human T-Lymphotropic Virus I & II
- antibody to Treponema Pallidum the causative agent of Syphilis

These tests are performed using the latest cGMP (good manufacturing practice) compliant equipment. Screening for most of these viruses takes place on the Abbott Prism using Abbott Prism test kits and the Prism system is in use in the IBTS since June 1997. The Abbott Prism is a fully automated, high-volume, multi-channel blood screening instrument designed specifically for the blood donation screening market. It offers full GMP compliance and is capable of processing 180 samples per hour.

Screening for Syphilis and Cytomegalovirus (CMV) takes place on the DiaSorin ETImax processor.

Selected donations are tested for Cytomegalovirus (CMV) in order to have a supply of Cytomegalovirus negative donations for those patients who need it e.g. immunocompromised patients. When all tests are complete and if satisfactory results are obtained, the unit is cleared and labelled for issue provided also negative by Nucleic Acid testing.

The laboratory also performs screening tests for viral markers for various departments within the IBTS, including stem cell donors, heart valve tissue donors and samples from recipient tracing testing programmes

The quality of the testing system is ensured by using standards from the 'National Institute of Biological Standards and Controls UK', and a multimarker control from Acrometrix as 'go/no go' controls on all testing runs. These quality control standards are used to monitor the consistency of test performance using statistical process control on a daily basis and, over a period of time, as a retrospective monitor of batch performance. The laboratory participates in a monitoring programme which allows IBTS to compare results to Blood Centres in the UK.

The laboratory also participates in the surveillance programme run by National Health Service Blood

# Automated Donor Grouping

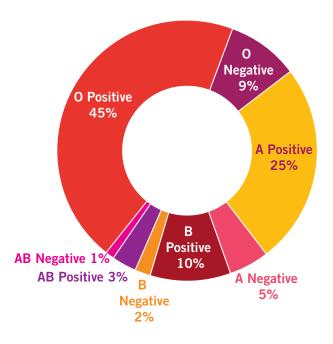
and Transplant (NHSBT) Epidemiology Unit/Health Protection Agency UK. The confirmed positive rates and reactive rates for testing kits and confirmatory results using various lot numbers of reagents with the NHSBT are monitored. A notifying report is generated which details assay performance and trends in reactive rates.

The Virology laboratory participates in three proficiency programmes, one circulated by the United Kingdom National External Quality Assessment Service (UK NEQAS) for Microbiology, the second by VQC-Acrometrix in association with National Serology Reference Laboratory Australia (NRL, Australia) and one by the European Directorate for the Quality of Medicines & HealthCare (EDQM).

#### **Automated Donor Grouping**

Automated Donor Grouping is continually striving to introduce the most up to date testing techniques and expand the number of red cell antigens that can be routinely typed. These tests improve not only the safety of red cell products, but also increase the efficiency of providing red cells of rare or complex phenotypes in response to specific requests from hospitals.

In 2012 more than 155,000 donations were tested and each red cell unit requires certain mandatory tests before they may be released for issue. These include ABO & RhD types and a screen for irregular antibodies. During this year there were over 10,000 new donors bled, which represent 6.5 % of the total donations. The blood group and RhD type of this group will reflect the true blood group characteristics of the donor population which is:-



Over 45% of donors receive a full Rh phenotype (C, c, E, e type) every time they donate and 20% of these will go for further antigen screening or typing. These donations are then available for issue to patients who are known to have produced multiple red cell antibodies.

Over the last year red cell units have been made available for several cases, where the frequency of that particular cell type in the donor population would be less than 1 in 1000. In real terms this means that if every donation was typed, only 3 donations per week would be suitable for such cases. However, with selective typing and good stock management, in most cases units can be provided out of current stock for emergency issue.

Some patients however produce an antibody to a particular antigen, the chances of finding compatible donations for transfusion is exceedingly small. There are a small number of people in the country who would fall into this category and an example of this would be those lacking the cellano antigen (little k negative). A screening project is being performed to identify the cellano negative donors, enabling a panel of such donors to be compiled. This will facilitate the rapid call up of such donors in an emergency. A further search for an even more rare blood type (Kpb negative) was also initiated in 2012. The frequency of Kpb negative is reported to be less than 1 in 5000 donors and there are no known Kpb negative donors in the Irish blood donor panel. Importation of Kpb negative units has been the only option for blood provision in the past. 200 donations have been screened to date but none yet identified. Projects like this also yield valuable information which will inform

and update the correct frequency and distribution of various antigen types throughout the country.

The Automated Donor Grouping Laboratory partakes in two external quality assessment schemes, which involves the submission of 15 separate exercises per year. All staff competency are monitored using these exercises, which involve blood typing, antibody screening and antibody identification, by both automated and manual techniques. The laboratory staff has scored 100% accuracy, since the laboratory's first participation in these schemes 9 years ago.

The Automated Donor Grouping Laboratory is a national testing facility and therefore the IBTS has an external contingency testing plan with the Scottish National Blood Transfusion Service in case of a critical failure. The contingency plan is to send samples for testing on identical automates at the SNBTS. This plan is tested on a small number of samples on a regular basis. The Donor Grouping laboratory has sufficient internal capacity to cope with instrument failures and the contingency plan has never been activated in a live situation to date.

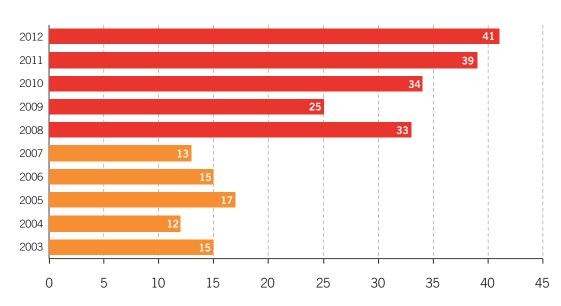
# NHIRL

### National Histocompatibility and Immunogenetics Reference Laboratory (NHIRL)

The National Histocompatibility and Immunogenetics Reference Laboratory (NHIRL) provides a comprehensive range of clinical testing services designed to support the allogeneic haematopoietic stem cell transplantation (HSCT) programmes at St. James's Hospital and Our Lady's Children's Hospital, Crumlin. HSCT can be used in the treatment of leukaemias, bone marrow failure syndromes and inherited metabolic disorders.

The laboratory determines the human leucocyte antigen (HLA) type of all patients and donors (related or unrelated) prior to transplantation to aid donor selection. The laboratory uses exclusively molecular methods based on the polymerase chain reaction (PCR) to define the genes that encode the HLA molecules. This technology can achieve a high level of resolution that distinguishes between individual alleles of the HLA genes. The laboratory has an extensive quality assurance programme including participation in both internal and external proficiency testing programmes for HLA typing, human platelet antigen (HPA) genotyping and HLA antibody investigations. The NHIRL has been accredited by the European Federation for Immunogenetics (EFI) since 2001.

In 2012 samples from 220 Irish patients for potential haematopoietic stem cell transplants and their relatives were HLA typed by the NHIRL. For those patients without a suitable family donor, an unrelated donor may be identified from the registry of volunteer donors. The NHIRL provides an immunogenetics support service for the Irish Unrelated Bone Marrow and Platelet Registry (IUBMR) and in 2012 the laboratory HLA typed 1154 new volunteer donors to add to the registry, an increase of nearly 50% on the number typed in 2011.

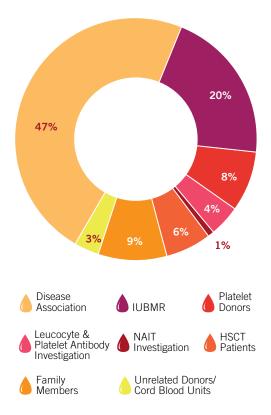


# Number of Irish Patients receiving a HSCT from an Unrelated Donor 2003-2012

In the last 10 years the IUBMR has facilitated 270 unrelated donor transplants for Irish patients, 79% (n=213) of these transplants have been performed in the last six years and 45% (n=121) in the last three years.

The NHIRL also provides a routine disease association HLA typing service. This service represented 47% of the investigations performed in 2012. The majority of samples are referred for determining the presence or absence of HLA-B27 which is associated with Ankylosing Spondylitis; a painful, progressive rheumatic disease mainly affecting the spine and sacroiliac joints.

### **NHIRL Investigation Distribution**



In addition, a platelet immunology service for the serological investigation of neonatal alloimmune thrombocytopenia (NAIT), post transfusion purpura (PTP), platelet refractoriness, alloimmune thrombocytopenias and adverse transfusion reactions is provided. The number of investigations for NAIT has remained at the same level as compared to 2011.

A total of 450 platelet donors were HLA-A, -B typed and included on the panel of platelet donors in order to support the provision of an optimal platelet product to the hospitals. The overall number of samples received for investigation has been 6,061, 6,189 and 6,109 in 2010, 2011 and 2012 respectively.

The laboratory continues to be actively involved in research projects with Irish hospitals and universities to elucidate the role of HLA and killer cell Ig-like receptors (KIR) genes in various diseases. The following poster was presented in 2012 in collaboration with St. James's Hospital, Dublin at the European Federation for Immunogenetics Annual Meeting in Liverpool.

 HLA/KIR types and their association with immunological progression in HIV infected patients.

# Diagnostics Dublin

The diagnostics laboratory, at the NBC, provides Red Cell Immunohaematology and Antenatal services for hospitals nationwide.

The services provided by the Diagnostics Laboratory include;

- Provision of phenotyped blood (not available on the shelf)
- Provision of crossmatched blood for patients with complex antibodies and for hospitals without Blood Transfusion Laboratories
- Investigation of red cell antibodies
- Investigation of Haemolytic Transfusion Reactions
- ABO/Rh typing, including typing problems.
- Investigation of positive Direct Antiglobulin Tests (patients and donors)
- Investigation of Autoimmune Haemolytic
   Anaemia.
- Investigation of Haemolytic Disease of the Fetus & Newborn (HDFN).
- Prevention of HDFN by routine Antenatal Screening for at risk pregnancies. (Includes the quantitation of Anti-D, anti-c and titration of clinically significant antibodies).
- Provision of suitable blood at delivery for at risk pregnancies.
- Scientific advice to hospital colleagues.
- Extended phenotyping for transfusion dependant patients.

In total, over 2,000 samples were referred in 2012. Samples referred are continuing to reflect the changing population demographic in their complexity. In 2012 the following complex antibodies were identified through the IBTS: Anti-Inb , Anti- Yta, Anti-U, Anti-Jk3 Anti-Csa, 11 HTLA antibodies, 9 System specific abs, 2 CR1 related abs, 1 x (Anti-C, -Jka, -Ch), 1 x (Anti-hrs, anti-Lea) Anti-DISK

A total of 13 units were imported from international Rare Blood Banks to cover transfusion requirements for some of the more complex cases.

The Red Cell Immunohaematology On-Call Service available for patients with a clinically urgent requirement for serological investigation /provision of crosmatched blood continues to operate well. There were over 80 cases requiring the attendance of the on-call Scientist in 2012.

A total of 1,143 donations were screened for antigen types in 2012. This is a significant amount of screening – accounting for the number of patients with multiple antibodies that require regular transfusion support, where the standard antigen typing by ADG does not fully meet the requirement.

The Diagnostics Laboratory maintained a 92% target for Turnaround time for the issue of reports.

Since 2011, the Diagnostics Laboratory has operated an antenatal register for monitoring pregnancies at risk of Haemolytic Disease of the Newborn. This is to ensure that patients with complex or multiple antibodies (other than anti-D, anti-c, anti-K) have available stock of suitable units for mother and baby at delivery. To date 53 cases have been monitored with blood on standby in 40% of cases. Babies suffered from some form of haemolytic disease in 30% of cases. Donors were specifically called up in

# Diagnostics Cork

27% of cases and blood was eventually transfused in 7% of cases. Thus far the blood cover seems appropriate.

The laboratory continues to build on its educational and academic role in Transfusion Medicine. Diagnostics staff gave scientific oral presentations at the BBTS and Anti-D User Group meetings in the UK and the National Haemovigilance Office Meeting in Dublin. In addition they participated in a highly successful joint IBTS/ Academy Medical Laboratory Science meeting, held at the NBC which focused on the IBTS patient testing services. Finally they continued to host visits from hospital transfusion laboratories. The diagnostics laboratory in the Cork Centre provides crossmatching services for a number of city hospitals and acts as a reference laboratory for hospitals within the Munster region.

The services provided by the Diagnostics Laboratory include;

- Acts as hospital Blood Bank for several city hospitals
- Provision of phenotyped blood (not available on the shelf)
- Investigation of antibody problems.
- Investigation of Haemolytic Transfusion Reactions
- ABO/Rh typing, including typing problems.
- Investigation of positive Direct Antiglobulin Tests
- Investigation of Autoimmune Haemolytic Anaemia.
- Investigation of Haemolytic Disease of the Newborn (HDN).
- Provision of suitable blood at delivery for at risk pregnancies.
- Scientific advice to hospital colleagues.
- Extended phenotyping for transfusion dependant patients.
- Filling Hospital Orders For Phenotyped Blood
- Filling Hospital Orders For Irradiated Blood
- Filling Hospital Orders For Platelets

In total, 2,655 samples were tested in 2012. The Emergency Reference Red Cell Immunohaematology On-Site Service, for patients with a clinically urgent requirement for antibody Investigation / Compatibility testing continues to operate well.

# **Other Services**

# Tissue Bank

#### **Tissue Bank**

The Tissue bank at the NBC is comprised of the National Eye Bank, The Heart Valve bank and the Directed / Sibling Umbilical Cord Blood Bank and is licensed under the Tissue and Cells Directive 2004/23/EC which sets standards of quality and safety for the donation, procurement, testing, processing, preservation, storage and distribution of human tissues and cells.

The bank is responsible for distributing human tissue used in ophthalmic surgery nationally. Products supplied include corneas, sclera, amnion, pericardium and fascia lata. These products are all imported from the US. The IBTS also provides autologous serum eye drops for patients with severe dry eye on receipt of a request from an ophthalmologist. Human tissue products issued for 2012 were on par with 2011.

During 2012, process validation of limbal stem cell cultures were on going in the GMP clean rooms located in the tissue bank suite at the NBC. This is with a view to applying for a manufacturing authorisation licence under the Advanced Therapy Medicinal Products directive from the Irish Medicines Board in 2013.

The IBTS continues to process, cyropreserve and distribute human cardiovascular tissue on behalf of the Mater Misercordiae University Hospital.

The Directed/Sibling Cord blood bank collects and cryopreserves cord blood on request from the oncology/haematology team in OLCHC and Newcastle.

"The Tissue bank at the NBC is comprised of the National Eye Bank, The Heart Valve bank and the Directed / Sibling Umbilical Cord Blood Bank."

# National Therapeutic Apheresis Service

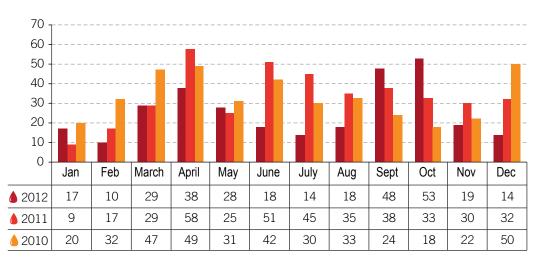
The Therapeutic Apheresis department, based in the National Blood Centre and MRTC Cork provides Therapeutic Apheresis treatments to patients in the main Dublin and Cork hospitals. These treatments are provided on request from the patient's primary medical care team. The service is demand led, characterised by peaks and troughs and all treatments are performed in the acute hospital setting. Apheresis procedures are performed on patients with rare and often life threatening Haematology, Renal, Neurology or Hepatology disorders.

An IBTS Consultant Haematologist leads the service and a medical evaluation of each patient is performed by NBC and MRTC specialist medical staff. Specialist NBC and MRTC medical staff are available for consultation for all procedures and are required to attend for first procedures in acutely ill patients and also complex procedures. Providing the patient is fit and the treatment is deemed appropriate, treatments are managed and administered by specially trained therapeutic apheresis nurses in NBC and specialist Medical staff and an RGN in MRTC. The majority of therapeutic apheresis procedures are Plasma Exchange but other treatments include, Red Blood Cell Exchange/ Depletion, Leucodepletion and Platelet Depletion, etc.

#### **National Apheresis Procedures yearly trends:**

The total number of procedures performed in 2012 was 132(NBC) 174 (MRTC) Previous 2 years:

NBC		MRTC	
2010	216	2010	179
2011	237	2011	197



### **National Therapeutics**

Figure 1: Trends for last 3 year

#### **Procedure Type and Speciality**

NBC: The majority of procedures performed were
Plasma Exchange (n = 129). Other procedures
accounted for Leucodepletion (n = 1), Platelet
Depletion (n = 2)
A total of 25 patients were treated, these accounted for
Neurology = 11 patients (60 procedures)
Nephrology = 8 patients (48 procedures)
Haematology = 5 patients (22 procedures)
Hepatology = 1 patient (2 procedures)
MRTC: Procedures performed were Plasma
Exchange (N=174)

#### **Procedures Prioritised**

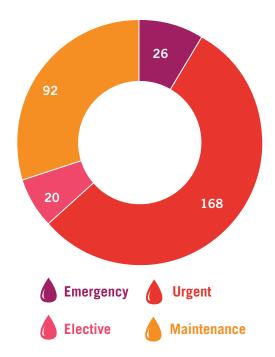
All cases are classified as:-

**Emergent:** treatment is required for threatening disorders during day or night hours.

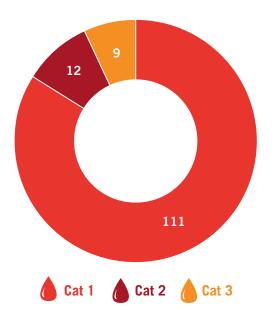
**Urgent:** treatment is required for disorders that warrant treatment on week-ends and public holidays. **Elective:** non- urgent planned procedures performed during core hours.

Maintenance: non-urgent planned procedures performed for out-patents during core hours. The majority of procedures were classified as Urgent/ Emergent

### **Procedures Prioritised 2012**



### Procedure no's by ASFA category (NBC)



# Therapeutic Apheresis Service

### American Society for Apheresis (ASFA) -Categories

All treatments are classified according ASFA Indicator Categories -2010, evidence based categories which include analysis based on the quality of evidence as well as the strength of the recommendation derived from the evidence.

**Category 1:** Standard acceptable therapy, primary or adjunct to other treatments.

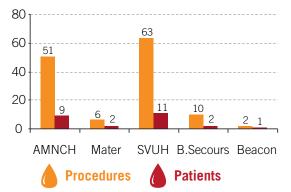
**Category 2:** A supportive therapy, available evidence supports efficacy,

**Category 3:** Insufficient data to determine effectiveness of apheresis.

**Category 4:** Evidence shows therapeutic apheresis ineffective

A total of 132 procedures were performed:

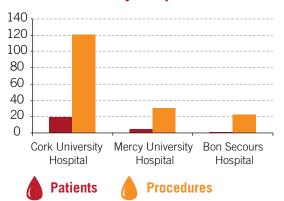
### Procedures by Hospital NBC



# Number of Procedures per hospital 2012 (NBC)

AMNCH	Mater	SVUH	BSH	Beacon
54	6	63	10	2

### **Procedures by Hospital MRTC**



# Number of Procedures per hospital 2012 (MRTC)

СИН	MUH	BSH
54	6	63

### Adverse Reaction (NBC)

A total of 7 patients experienced mild/moderate adverse reactions (5 mild and 2 moderate). These were attributed to: - Citrate n = 4, Disease n = 3. No severe reactions were recorded.

# National Haemovigilance Office (NHO)

Haemovigilance operates to collect and assess information on unexpected or undesirable effects resulting from blood transfusion, and to prevent their occurrence or recurrence. Haemovigilance in Ireland is co-ordinated by the National Haemovigilance Office (NHO) based at the IBTS and in the twelve years of its existence, (2000-2012), a total of 3,349 serious adverse transfusion reactions and events have been reported at the time of this report. Dr Ian Franklin, Medical and Scientific Director of the IBTS continued his role as Director of the NHO. The NHO liaises with and supports the Haemovigilance Officers [HVO] based in hospitals throughout Ireland and the medical consultants with haemovigilance responsibilities. In addition, the NHO maintains links with colleagues internationally through the International Haemovigilance Network.

# Serious Adverse Events (SAEs) – mandatory and non mandatory

The NHO reviewed and accepted mandatory SAEs relating to the quality and safety of blood under the EU Blood Directive 2002/98/EC in addition to non-mandatory SAEs related to the clinical aspect of blood transfusion. These reports came from facilities, hospital blood banks and blood establishments and included near miss events occurring in the laboratory where patients were not transfused. One hundred and seventeen mandatory SAEs were reported, which was 51% of all SAEs. In addition, 113 non mandatory SAEs, primarily relating to errors in clinical areas, were reported under professional responsibility, which was 49 % of all SAEs.

# Serious Adverse Reactions (SARs) – mandatory and non mandatory

137 SARs were accepted by the NHO, as in previous years these were mainly in the Acute Allergic/Anaphylactic Transfusion and Febrile Non-Haemolytic Transfusion Reactions categories. One hundred and thirty-one SARs met the criteria of a mandatory report under Directive 2002/98/EC, and six SARs involving SD plasma were non mandatory SARs.

## Annual Notification of Serious Adverse Reactions and Events (ANSARE)

In compliance with Commission Directive 2005/61/ EC Annex II D and III C for hospitals transfusing blood, all hospitals transfusing blood together with all blood establishments (BE) must complete and return an ANSARE form to the NHO. Two-hundred and forty-eight mandatory reports were accepted by the NHO in 2012, with the compilation of ANSARE report ongoing at time of writing.

### NHO Annual Conference

The NHO Annual Conference was held in the Burlington Hotel, Dublin on Monday 26th November November with just over 200 delegates with multidisciplinary backgrounds in attendance. The conference is regarded as a valuable opportunity to network and refocus on the clinical aspects of Haemovigilance by sharing individual views and experiences.

# National Haemovigilance Office (NHO)

In his opening address Professor John Crown, Consultant Oncologist, highlighted the contribution of haemovigilance to safe blood transfusion practice in particular the importance of meeting the transfusion needs of patients with special requirements. Two key note speakers Mr. Toby Richards, Consultant Vascular Surgeon and Dr.Alwyn Kotze spoke on the importance of patient blood management and the treatment of pre-operative anaemia.

### Irish Medicines Board (IMB)

The Competent Authority for implementation of all aspects of the EU Blood Directive is the IMB and regular case review meetings were held with the NHO to discuss reported incidents.

# Education, promotion and developments

The NHO supports the ongoing development of hospital in-service training programmes and transfusion education for nursing and medical laboratory science students by working closely with hospital based HVOs. In addition, efforts are being made to expand transfusion specific education and training for medical staff.

# Haemovigilance Education Initiatives at DCU

Due to the changing circumstances in Irish Hospitals provision of the post-graduate Haemovigilance modules offered in conjunction with Dublin City University (DCU) was postponed during 2012. A survey conducted during 2011 identified a continued need for post-graduate education but in a revised format. A proposal was therefore developed to offer a single 10 credit module during 2013. The revision of the programme is in line with the NHO's commitment to provide ongoing support and education on safe transfusion practice and the commitment of the IBTS to work with academic institutions to grow a research base (Irish Blood Transfusion Service Strategic Plan, 2010-2).

### e-Learning

The IBTS continued to licence and provide the 'Learnbloodtransfusion' e-learning programme to hospitals via LearnProNHS. This programme was developed by the Scottish National Blood Transfusion Service (SNBTS) with the NHO and IBTS contributing to editorial content. In 2012 a module on patient consent for a blood transfusion was added and the NHO/ IBTS and staff from hospitals contributed to an extensive review of the laboratory module. Ninetytwo Irish sites are registered on the programme. This includes staff in hospitals and health care undergraduates in several universities undertaking the modules as a mandatory course requirement. At the end of 2012, of the just over 12,000 users registered on the programme, 53% were nurses, 28 % medical staff and the remaining 19% were medical scientists, phlebotomists, porters and students.

# Irish Unrelated Bone Marrow Registry (IUBMR)

Hemopoietic progenitor cell transplantation is a life saving therapy for certain patients with leukaemias, bone marrow failure syndromes and for particular inherited metabolic disorders. For the many patients who do not have the preferred option of a fully matched sibling, an unrelated donor from one of the 21 million volunteer donors worldwide provides a suitable alternative.

To meet the need for hemopoietic progenitor cell donors for both Irish and International patients, the Irish Unrelated Bone Marrow Registry (IUBMR) was set up in 1989. Since 2001 all donors registered on the unrelated panel are typed exclusively by DNA methods by the National Histocompatibility Immunology Reference Laboratory (NHIRL).

The registry is licensed by the Irish Medicines Board under the EU Tissue Directive 2004/23/EC.

In August 2012 Dr. Diarmaid Ó Donghaile was appointed as the registry's medical director, returning from the US National Institutes of Health.

### International Accreditation

Since 1991, the IUBMR has been affiliated to the World Marrow Donor Association (WMDA), an organisation which sets operational standards for bone marrow registries worldwide. Currently 75% of donors are selected from WMDA accredited registries.

The IUBMR achieved benchmark accreditation status with the WMDA in 2007, the 8th Registry in the World. Retention of Accreditation is stringent with a yearly review and an on site inspection every four years. The IUBMR had the first on site visit by WMDA accrediting members early in 2012 and was subsequently awarded full registry accreditation by the WMDA. Only ten registries to date have been awarded full accreditation.

# Donor Searches for Irish Patients

The registry searches for suitable donors on the Irish panel and Bone Marrow Donors Worldwide (BMDW) on behalf of the Irish Transplant Centres at St. James's Hospital (SJH) and Our Lady's Children's Hospital Crumlin (OLCH). In 2012 sixty eight (68) patients were referred to the IUBMR for unrelated searches.

Thirty (30) of the patients referred for an unrelated search in 2012 were also transplanted in 2012. Eighteen (18) cases are still open, eleven (11) were cancelled by the Transplant Centre, five (5) are on hold because the patients are clinically well and do not require transplantation. Two (2) patients had sibling donors identified and two (2) patients were transferred to another transplant centre.

# Marrow and PBSC Recipients

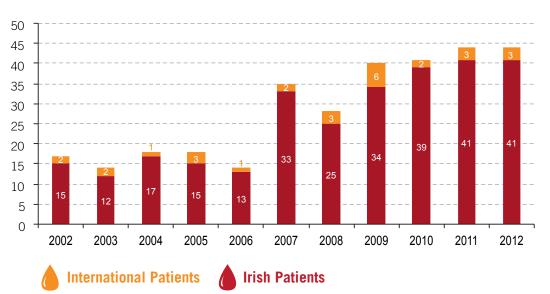
Forty one (41) Irish patients received stem cells from an unrelated donor in 2012 Thirty three (33) stem cell donations were sourced from Europe including Ireland (4) and eight (8) from outside the EU.

# Irish Unrelated Bone Marrow Registry (IUBMR)

The majority (22) of the transplant sources were derived from peripheral blood stem cells (PBSC) then bone marrow (17) and cords (2). Fifteen (15) of the patients who received PBSC had a reduced intensity conditioning (RIC). Eleven (27%) of the patients transplanted were over 50 years of age. The most common indications for the patients transplanted in 2012 were AML/MDS (32) 47%, Lymphomas (13) 19% acquired and inherited Anaemias (6) 9% ALL (6) 9%, Myelofibrosis (4) 6%, Inherited metabolic disorders (2) 3%, other (5) 7%.

### Irish Donors

Bone marrow volunteers are recruited by the bone marrow recruitment nurse at blood donation clinics 2 days a week. This year recruitment increased from 633 in 2011 to 1,123 due to changes in the recruitment processes. The availability of additional manpower allowed the development of a donor database. Donors were contacted by electronic means and directed to blood donation clinics in an organised fashion. This permitted processing of dormant requests to join the registry, originating from the IBTS website.



### **IUBMR Transplants Facilitated From Irish** And International Donors 2002 - 2012

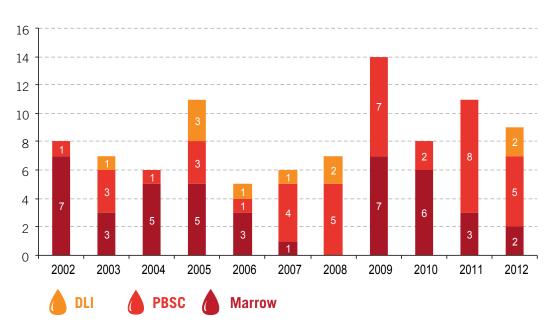
When an Irish donor is identified as a potential match for a patient they are counselled and medically reviewed by the bone marrow registry nurse. Samples are taken to perform a higher level of typing and infectious disease markers (IDMs).

If the donor is a suitable match for the potential recipient, the donor commences the workup process which is co-ordinated with St. James's Hospital which is the adult collection centre.

The donor will be seen by the Medical Director/ designate of the IUBMR, an independent medical physician and the consultant who will be performing the collection procedure to assess donor suitability for the procedure. In 2012, five (5) donors donated PBSC and two (2) donated bone marrow.

### International Activities

Preliminary searches were received on behalf of three hundred 300 international patients of which ninety (90) were activated for additional typing requests. Three (3) donors went on to donate PBSCs for international patients. All three donations went to European transplant centres.



### Irish Unrelated Bone Marrow Registry Irish Unrelated Donors Stem Cell Donations 2002 - 2012

# Quality & Compliance

"A comprehensive review of the Quality function was performed during the year by external consultants with a view to reconfiguring the operation of quality within the IBTS and supporting the changing needs of the organisation."

450 ml

### Quality & Compliance

A comprehensive review of the Quality function was performed during the year by external consultants with a view to reconfiguring the operation of Quality within the IBTS and supporting the changing needs of the organisation. A short to medium term plan was outlined which will need to be delivered over a 3–5 year timeline

These changes combined with personnel changes arising from staff departures/retirements will pose a real challenge to the Quality function in terms of maintaining standards and the highest level of safety into the future.

Continued focus on cost reduction/cost effectiveness now informs all agendas within the IBTS and the support of Quality in this effort is essential.

Regulatory audits are carried out by the IMB to ensure continued licensing of the IBTS as a Blood and Tissue Establishment and as a distributor of medicinal products.

During 2012, the IBTS was regularly audited by the Irish Medicines Board, with a total of 5 site inspections carried out. There were a total of 17 nonconformances raised, with one being a major.

The major non-compliance related to delays in close out of documentation within the Quality Management System. A detailed response was sent to the regulatory authority and was deemed acceptable.

In addition to inspections by the regulatory authority, the IBTS has a comprehensive programme of annual internal audits. The scope of these covers all elements of the IBTS activities from donor clinics to despatch and distribution products. There were 43 compliance audits performed internally during 2012 covering all centres.

In addition, the IBTS carried out/participated in 5 vendor audits. A number of these were conducted in conjunction with other Blood Services in the EU as part of tendering operations.

The Quality function reported on defined metrics on a quarterly basis throughout the year. The content and format of these is also being reviewed as part of the changes in the Quality System.

The measure of close out rates for internal incidents was at 70% by year end, against a target of > 80% closure. The close out rate for product complaints was at 77.5% by end of year, against an internal target of > 90% closure. This was connected with the major non-compliance with the regulatory inspections. A more robust system of focus, regular review and monitoring has been put in place to achieve targets. Donor Services complaints are also measured for close out, by year end 98% closure was achieved for a total of 270 complaints, exceeding the target of 90% closure.

The planned implementation of SMART CAPA was not achieved during 2012, due to resourcing constraints. This will be a clear objective for 2013 for the Quality function.

The ongoing project of nationalisation of SOPs improved during 2012, with a total of 974 national SOPs delivered by year end. Correspondingly there has been an overall decrease in total SOPs by 18%.

### Quality & Compliance

Product Recalls are monitored closely as well within the Quality Management System, with 229 recalls nationally investigated during 2012. While this is an increase on 2011 figures of 212, it represents an 8% increase, it has stabilized over the last few years.

The IBTS also operates a number of vigilance systems for post market surveillance of products. Suspected Serious Adverse Reactions (sSARs) and suspected Serious Adverse Events (sSAEs) are recorded by the Quality function and reported onwards to the IMB and the National Haemovigilance Office. During 2012, there were132 suspected SARs and 59 suspected SAEs reported by the IBTS.

There is also a comprehensive system for capturing Donor Vigilance incidents within the Quality Management System. A total of 525 cases were reported during 2012.

All testing laboratories within the IBTS participate in External Quality Assurance Schemes (EQAS). Participation by all laboratories was noted as satisfactory during 2012.

# **Energy Usage**

"Nearly two thirds of the energy consumption at the NBC and MRTC is used in the Production and Testing laboratories."

### Energy Usage

### Overview of Energy Usage

The main energy users at IBTS are at our processing and testing facilities: of the total energy consumed by the organisation, the National Blood Centre accounts for 81% of the total, the Munster Regional Transfusion Centre for 10%, our fleet of vehicles for 5% and the six regional centres for the remaining 3%.

Nearly two thirds of the energy consumption at the NBC and MRTC is used in the Production and Testing laboratories; for example the power used in the production and testing processes, cold storage of blood products and associated reagents, and utilities such as air conditioning for production purposes.

Lighting, office equipment, and office air conditioning account for the remaining energy consumed at these facilities.

In 2012, IBTS consumed 11,143 MWh of energy. The breakdown of the figures for 2012 consisted of:

- 5,252 MWh of electricity which is a 3% reduction on the 2011 figure.
- 5,890 MWh of fossil fuels, including 5,288 MWh of natural gas and 603 MWh of transport fuels. Natural gas increased 5% on the 2011 figure.

# Background to making energy savings

The construction of the National Blood Centre was completed in 1999, and it incorporates many modern energy saving devices such as variable speed drives on pumps and fans. The organisation continually optimises the operation of such devices to maximise the energy savings available.

The organisation operates within a Quality System in which there is tight control of conditions within our cold rooms and appliances, and tight control of environmental parameters such as temperatures within laboratories.

Changes we may wish to make to utilities to save energy need to be scoped and evaluated in advance to establish that the impact on the organisation's products and Quality System is acceptable to the organisation.

### External factors (weather)

As a year 2012 was colder than usual (particularly spring and autumn). We track our natural gas consumption with reference to degree day figures which are published each month. The total degree days for 2012 was 10% higher than 2011, indicating that as a year 2012 was 10% colder than 2011. This is a reason for the natural gas consumption at IBTS increasing 5% in 2012.

### Actions undertaken in 2012

In 2012 IBTS undertook a range of initiatives to improve our energy performance, including:

We trialled changes in the air conditioning operating mode in the main production laboratory which could save up to 80 MWh per annum. Particle and bacterial count readings were taken during this trial. The validation report is this is awaited and we are hopeful to implement these changes in 2013.  IBTS participated in the Energy Link network for public sector companies organised by the Sustainable Energy Authority of Ireland (SEAI).
 IBTS does not fall into the top 100 public sector energy users so IBTS expect to be in the second phase of public sector companies who will implement mandatory energy reporting to SEAI.

### Actions planned for 2013

In 2013 IBTS intends to improve our energy performance by undertaking the following initiatives:

- Implement the changes to air conditioning operating mode in the main production laboratory discussed above which could save up to 80 MWh per annum.
- Replacing an air handling unit which uses electric heating elements with a unit using heat pump technology which will reduce the energy consumed to one-third the original value and pay back the capital cost through lower energy bills within just over three years.
- A staff member will be trained and register as a non-domestic Building Energy Rating assessor so IBTS will have in-house the skill to carry out BER assessments of our facilities.
- IBTS will further participate in the Energy Link network for public sector companies.
   We expect that in 2013 SEAI will schedule IBTS to start reporting our energy savings compared to baseline year similar to the top 100 public sector companies. The target is for all public sector companies to reduce energy consumption by 33% compared to their baseline by 2020.

# Human Resources

"Human Resources continue to focus on improving internal human resource strategies. This ensures that employees are enabled to meet the needs of donors and patients throughout this current year."

### Human Resources

Human Resources continue to focus on improving internal human resource strategies. This ensures that employees are enabled to meet the needs of donors and patients throughout this current year. Projects in 2012 include operational human resources, change management, training and development, library services and health and safety.

### Operational Human Resources Projects

The focus of these projects is to develop a stronger culture of accountability for the management of employees and deliver efficient, effective and transparent processes to enable clarity of communication for team and one to one management.

# Performance Measurement and Development System (PMDS)

PMDS has been implemented nationally. All staff have completed the training and implementation is continuing for Q4 2012 and will be complete Q2 2013.

#### **Succession Planning**

A rigorous organisation wide exercise to develop a succession plan for critical roles in the organisation has been undertaken. Research was conducted and a report was compiled with recommendations. These recommendations were aligned to the performance personal development plans within the PMDS system to develop internal candidates.

#### **Administration Review**

An organisation wide review of administration services to explore efficiencies through a potential shared service system of managing our complex safety critical administration services has been completed.

#### **Business Information Reports**

Absence management desk top reports by department direct to line managers have been developed.

#### **Recruitment and Selection**

The Department of Health and Children issued a Recruitment Moratorium in 2008 which remains in place. Only key roles critical to the maintenance of the safe, sufficient collection and processing of blood products and their directives have been protected within this moratorium.

#### Absence Management renewed focus

The provision of desk top reports has enabled clear and succinct information for line mangers to be better placed to manage absence in their departments. Underpinning the absence reports is a step by step guide developed to provide practical assistance for managers to effectively manage their team absences. Having recognised absence is a cost to the organisation the goal is to reduce absence within the IBTS.

### Change Management Projects

The objective of IBTS change management is to enhance the development of service delivery to our patients and donors. The IBTS is committed to the wider health service reform agenda within the PSA

### Human Resources

agreement. This is an ongoing priority for human resources. Emphasis will remain on promoting a culture of continuous change in a timely manner that will also enable the delivery of quality service in this cost conscious environment.

The status of a number of projects is as follows:

#### Hybrid Collection Clinic introduction in Cork

Previously the Platelet Apheresis team and the Whole Blood fixed centre team were two separate teams based in the one building operating independently of each other. In order to achieve economies of scale in Cork, these teams have been successfully merged. The hybrid collection team collects whole blood and Platelet Apheresis donations.

# Accumulated hours roster system introduced nationally

Within the collection teams accumulated hours of working was introduced. This enables more efficiency in both roster planning and real time actual provision of service through effective management of resources within a banded hours system.

#### Transport review of services

The HSE is the largest customer of IBTS products. The IBTS is the main delivery source to the hospitals. The HSE decided to tender for the collection/delivery of blood as well as other temperature controlled products. A comprehensive communications process has been commenced with the transport team which is being progressed to deliver required efficiencies.

# Corporate Training & Development

The main areas for corporate training and development focus in 2012 were policy, procedures and administration, environmental health and safety training for managers and staff and projects.

An IBTS Core Value is Learning - '*we are committed to ongoing organisational learning, professional and personal development and research*'. The IBTS Training and Development function in 2012 has seen the following activities taking place which represent mandatory training requirements and continuous improvement development.

Corporate Training & Development Programmes		Total Attendees
Corporate Orientation Program	nme	29
Policies & Procedures & Adm	in training, including	
• MS Office Skills various		34
• Library Research Skills		31
• Training for Core HR sys	tems	6
EH&S Training Programmes,	including	
Manual Handling		120
• Donor - Manual Handlin	g	78
Fire Safety		51
• Fire Warden		32
• Ergonomics / Postural A	vareness (clinic)	23
Chemical Risk Assessme	ent	21
Driver Safety		15
• Emergency Evacuation p	olanning	48
Health & Safety Rep		5
Laboratory Safety		25
Functional Risk Assessn	nent	15
Accident & Incident Rep	orting	6
• First Aid refresher / Occ	upations First Aid	44
Gas Safety Training		14
Heart Saver AED		25
Skills Development		
Interview skills, Project Manag	ement, Internal Quality Auditor, Conflict resolution,	12
Supervisory Skills		

### Human Resources

# IBTS Assisted Education Scheme

Financial assistance was granted for further education in a variety of disciplines including Nursing, Laboratory Science, Quality Management and Occupational Health. There were 5 new applications in 2012

### **Projects Ongoing**

Performance Management Programme: 86 Managers completed training, 164 staff completed training & 44 staff completed their first Performance review. Succession and Skills contingency Planning.

### Library Services

The Library continued to drive and support the learning, research and education needs of the IBTS. A new brochure outlining our services was produced and the Library's mission statement revised to better reflect the values and goals of the IBTS. "*The mission of the IBTS Library is to promote excellence in learning, education and research within the Irish Blood Transfusion Service by providing an innovative library service for all staff and by enhancing the dissemination of information consistent with the organisation's value of learning.*"

In response to developing the Library's alerting and current awareness service, new subject specific email lists were set up for stem cell research, Hepatitis E and CMV. The Library now maintains over 50 subject specific lists which staff can sign up to and receive updates in their areas of interest.

Library staff continued to administer and upload

new content regularly to the Intranet such as weekly Journal Contents bulletins, weekly top stories from the industry, articles of interest etc.

Training by Library staff was provided on advanced search skills with group and individual library skills sessions being maintained throughout 2012. New library guides were produced for staff doing further studies.

Additions were made to the IBTS Digital Photographic Archive of images showing the history of the organisation from the 1940s to the present day. Images were shared with staff through the Intranet and the staff newsletter I-ByTeS.

The Library continued its role in the organisation's internal communications with the Research Officer/ Librarian co-editing the IBTS staff newsletter I-ByTeS published in July and December.

The Research Officer/Librarian also presented at various conferences within the library and research fraternity to foster relationships and promote the IBTS and the giveblood brand. A number of groups visited the library including UCD students studying for a postgraduate in Library and Information Science. The Research Officer/Librarian also gave 2 guest lectures in the SILS Library School in UCD and the IBTS Library was used as a case study for 2 Capstone projects on the management of specialist libraries.

# Environmental, Health and Safety

Environmental, Health and Safety has strategic importance within the organisation and comprehensive environmental health, safety and welfare programmes continue to be developed and adopted. Such programmes assist with legislative compliance and continue to promote an awareness of environmental, health and safety within the organisation.

# Manual Handling Training Programme

The manual handling training programme has continued to evolve and the programme for clinical staff was revised in 2012. A total of 200 staff attended the revised manual handling training programme.

### **Radiation Safety**

In accordance with Radiological Protection Act 1991 (Ionisation Order) 2000, a new Radiation Protection Advisor was appointed in 2012. The Radiation Protection Advisor is available to give advice and guidance to the organisation on radiation matters as necessary.

### **Bikes4Work Scheme**

With staff interest, the Bikes4Work scheme was run for the fourth successive year. The scheme was introduced in 2009 further to Irish Government introducing a benefit-in-kind tax break which supports employers in providing employees with bicycles and associated safety equipment to encourage people to cycle to work.

### Workplace Wellbeing

As part of Health and Safety Week in October 2012 Heartsaver Automated External Defibrillator Training (Irish Heart Foundation Certified) was made available to all staff throughout the organisation. A total of 30 staff from various locations attended this valuable training.

# Finance

#### Summary Accounts for the year ended 31st December 2012

	<b>2012 €'000</b>	<b>2011 €'000</b>
Income		
Recurring income	78,542	103,923
Non-recurring income	3,208	4,314
Total income	81,750	108,237
Expenditure		
Total expenditure	79,212	102,044
Surplus for year	2,538	6,193
Actuarial loss on pension scheme	(12,504)	(12,217)
Transfer to Capital Reserves	(343)	(681)
Transfer (to)/ from Research Reserve	(56)	159
Accumulated surplus/(deficit) at 1st January	(5,036)	1,510
Accumulated surplus / (deficit) at 31st December	(15,401)	(5,036)

### Income

The Board's total income for 2012 of €81.75million (2011 €108.23 million) is analysed into recurring and non-recurring income. Recurring income consists of revenue generated from sales of products and services provided to hospitals of €78.54 million (2011 €103.92 million). Nonrecurring income of €3.20 million (2011 €4.31 million) includes HSE Grant income, interest on bank deposits and proceeds from the sale of fixed assets. The drop in income represents reduced volumes and the reduction in HSE Grant Income.

### Expenditure

Expenditure for 2012 amounted to €79.21million (2011 €102.04 million). The reduction in expenditure mainly arises from the continuation of the IBTS cost reduction programme implemented by the Board in 2009.

The Board accounts for pensions in accordance with financial reporting standard 17 'Retirement Benefits' (FRS 17).

### Reserves

The Board has a Capital reserve for the development of new facilities in Cork. During

2009 €2 million was transferred to the fund. The balance in the fund for the year ended 31st December 2012 was €8.02 million.

In 2006 the Board set up a research reserve. In 2012 €56,000 was added to the reserve. (In 2011 €159,000 was expended from the reserve).

### Capital Expenditure

The Board invested  $\in$ 1.95 million in capital projects and equipment during 2012 ( $\in$ 1.46 million 2011).

The main investments during the year included the commencement of expenditure on a new Blood Establishment Computer System (BECS), the new Electronic Ordering System, and the replacement of temperature controlled vehicles and platelet storage units.

There was recurring expenditure for the replacement of ICT infrastructure including the Core Switch Upgrade, laboratory and other plant and equipment. In addition, expenditure was incurred for the completion of the firewall upgrade and environmental monitoring system.

### **Prompt Payment Legislation**

The Board complies with the requirements of Prompt Payment Legislation except where noted below. The Board's standard credit taken, unless otherwise specified in specific contractual arrangements, are 30 days from receipt of the invoice or confirmation of acceptance of the goods or services which are subject to payment. It is the Board's policy to ensure that all accounts are paid promptly. During the year ended 31 December 2012, under the terms of applicable legislation, invoices to the value of €456,644.21 were late, by an average of 34.61 days. These invoices constituted 0.55% by number and 0.9% by value of all payments to suppliers for goods and services during the year. Total interest paid in respect of all late payments amounted to €2,040.74. The Board continuously reviews its administrative procedures in order to assist in minimising the time taken for invoice query and resolution.

# Contact details

# Auditors

Comptroller and Auditor General Treasury Building Lower Castle Yard Dublin Castle Dublin 2

# Solicitors

Arthur Cox Earlsfort Centre Earlsfort Terrace Dublin 2

# Bankers

Allied Irish Bank Dame Street Dublin 2

### Irish Blood Transfusion Service

#### National Blood Centre

James's Street, Dublin 8 t: 01/4322800 f: 01/4322930 e:info@ibts.ie www.giveblood.ie Donor infoline 1850731137

#### **Cork Centre**

St Finbarr's Hospital Douglas Road Cork t: 021/4807400 f: 021/4313014

#### **Dublin Blood Donor Clinic**

2-5 D'Olier Street Dublin 2 t: 01/4745000

#### **Stillorgan Blood Donation Clinic**

6 Old Dublin Road Stillorgan, Co Dublin t: 1850 808 808

#### **Ardee Centre**

John Street Ardee, Co Louth t: 041/6859994 f: 041/ 6859996

f: 059/9132163

### Carlow Centre Kernanstown Industrial Estate Hackettstown Road Carlow t: 059/9132125



National Blood Centre

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