



## Annual Report 2006



**Irish Blood  
Transfusion Service**

Seirbhís Fuilaidriúcháin na hÉireann

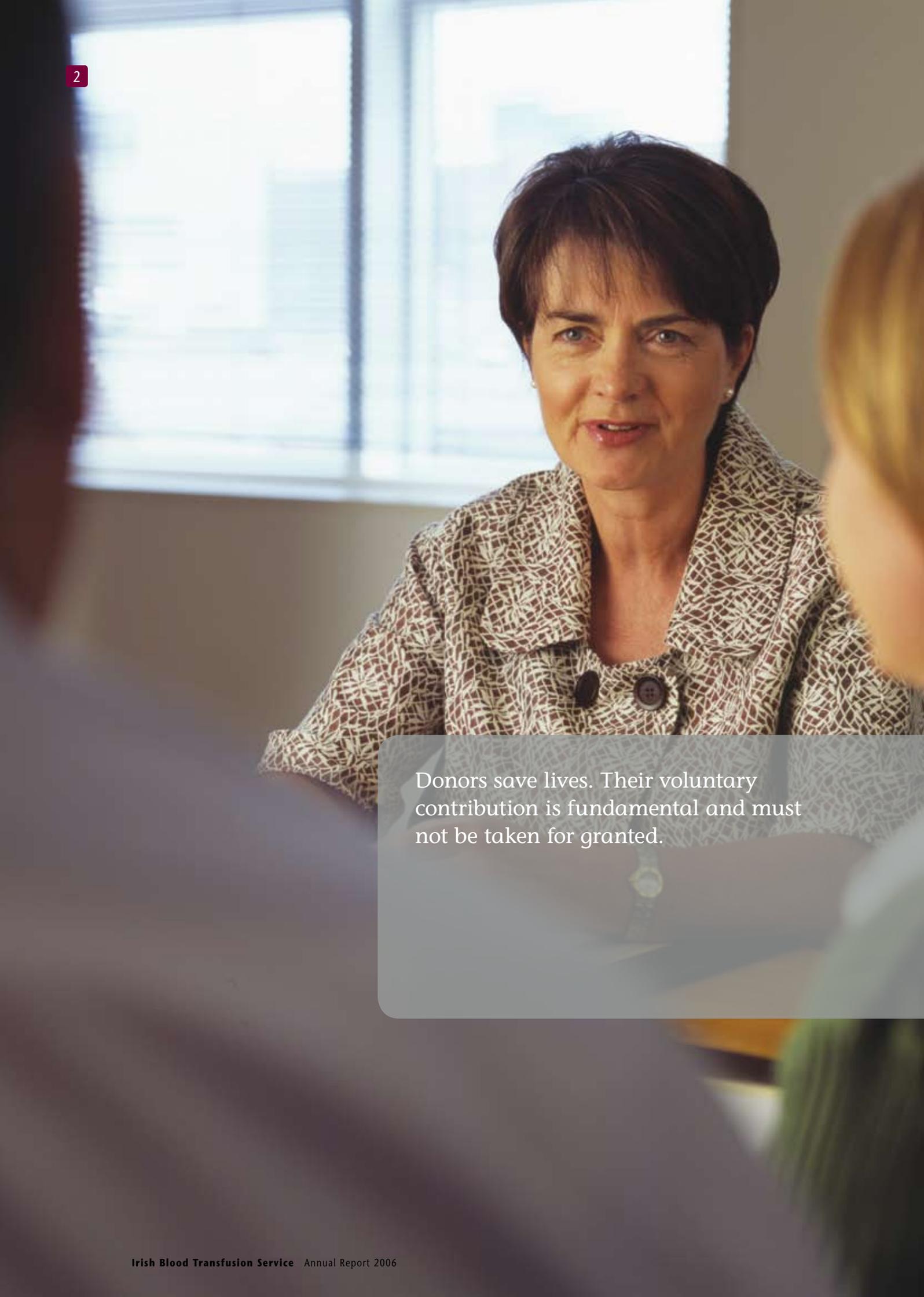


## Mission statement

The IBTS is committed to excellence in meeting patients' needs through the professionalism of our staff and the generosity of our donors.

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Donors save lives. Their voluntary contribution is fundamental and must not be taken for granted.

## Message from the Chairperson

The provision of world-class safe blood components, in sufficient quantities, to our hospitals has been and will remain the primary objective of the IBTS.

The issue of safety is paramount. Every advance in screening and testing techniques is utilised. However, the stringent application of ever advancing safety measures places ongoing pressure on donor supplies.

Donors save lives. Their voluntary contribution is fundamental and must not be taken for granted. Only 4% of our population are regular donors and this base must be expanded to ensure adequate supplies. The Board is committed to increasing public awareness. The Irish are a generous race and I am confident that they will respond.

The unique generosity of our donors is acknowledged and deeply appreciated.

The development of a new centre in Cork remains a priority for the Board. The Minister for Health & Children requested an updated proposal taking into account the Department of Finance's Guidelines for the Appraisal and Management of Capital Expenditure Proposals in the Public Sector. This report was presented in December 2006.

The primary objective of the IBTS is to provide sufficient quantities of quality blood components to our hospitals. This objective was achieved in 2006. I would like to express my appreciation to the dedication and effort of the IBTS staff and management throughout the year in the delivery of this most important national service.

I also wish to acknowledge the contribution of Board members in particular those members who left the Board during the year, Mr Tony

McNamara, Dr Liz Keane, Dr Mary Horgan and Dr Melanie Cotter. I would like to welcome to the Board four new members Dr Rob Landers, Dr Margaret Murray, Ms Margaret Mullet and Mr Gerry O' Dwyer. I look forward to working with them.

**Maura J McGrath**  
Chairperson

A photograph of three people in a professional setting. In the center, a man with grey hair and glasses, wearing a dark suit, a light blue shirt, and a red tie with white polka dots, is engaged in conversation. To his left, a woman with dark hair is partially visible, wearing a patterned jacket. To his right, a man in blue scrubs is also partially visible, looking towards the man in the suit. The background is a brightly lit, modern interior with recessed ceiling lights.

The changes in the IBTS and in general in blood transfusion continue unabated. The IBTS is well placed to meet the challenges both from a product safety perspective and providing excellent service to our patients and donors.

# Chief Executive's Report

## The Pursuit of Excellence - strategic objectives obtained for the year

It gives me great pleasure to present the Annual Report of the Irish Blood Transfusion Service for 2006. I intend to deal with the report under the four pillars of the IBTS Strategic Plan 2005 – 2009.

Pillar 1: Adapting the changing business environment

Pillar 2: Quality

Pillar 3: Technology & Research

Pillar 4: Organisational Development

### **PILLAR 1 - ADAPTING THE CHANGING BUSINESS ENVIRONMENT**

The IBTS is constantly facing a changing environment both in terms of donor expectations and delivery of service.

Recruiting and retaining donors continues to be a significant challenge for the IBTS. During 2006 a major review of the donation process was undertaken, aimed at improving the donor journey and increasing job satisfaction for the staff engaged in providing that service. We used Lean techniques to map the current process flow for the donor and to define the future approach which would result in a more streamlined operation.

Health service reforms have resulted in the IBTS having an operational relationship with the Health Service Executive through the National Hospitals Office. During the year we have met with the Chief Executive HSE, Director and Assistant Director of the National Hospitals Office and the Director of Finance to inform them of the developments taking place in the IBTS and how we could mutually benefit each others activities through co-operation and in particular the optimum use of the blood supply. The IBTS put forward a proposal for a National Transfusion Committee and this is in discussion.

We receive our funding through the Department of Health and Children but because the health care budget has passed to the Chief Executive of the Health Service Executive the funding mechanism will be more complicated in future years.

### **PILLAR 2 - QUALITY**

2006 brought the introduction of the EU Directive on Tissue which has significant impact on the IBTS even though we carry out limited tissue activities. In addition, we received a licence as a blood establishment from the regulator and we are in discussion with the regulator with regard to how haemovigilance will be operated under the terms of the traceability directive.

We have commenced accreditation to ISO 15189 for diagnostic laboratories and it is also our intention to gain this standard for testing laboratories in due course. The fundamental driver is to have a national quality management system with as little variance between two major sites as possible. The quality assurance and compliance function is beginning to develop metrics for measurement of quality within the organisation outside of the external inspections by the regulator. We had four inspections by the regulator during 2006 and we are in a good state of compliance with GMP.

### PILLAR 3 - TECHNOLOGY & RESEARCH

2006 was an extremely busy year with technology and research commitments across a wide range of activities.

In relation to research the Board has set aside some monies on an annual basis to develop a research and development programme within the IBTS. This is a very young programme and will take some years to mature. Under the National Medical Director, Dr. Willie Murphy, the programme has been primarily involved in development activities with regard to robotic manufacture and clinical trials for prion filters for platelet production and an assessment of the ATRIUS for component manufacture.

The ORBISAC was evaluated and was in service at the end of 2006 producing extremely high quality platelets of a consistent standard. It is expected that it will begin full production by July 2007 and 7 day pooled platelets shortly thereafter.

The IBTS examined and carried out a cost benefit analysis on evaluating the ATRIUS but decided at this point not to proceed any further. We also carried out clinical trials using the PALL Filter but these clinical trials were discontinued when we received additional information from the supplier.

It is the stated policy of the IBTS to move to single donor NAT testing as soon as a system provides the relevant specificity and sensitivity particularly with regard to Hepatitis B. We carried out an extensive process of evaluation on the TIGRIS.

It has proven to be extremely successful and tremendous work has been carried out by the team in the NAT laboratory under Dr. Joan O'Riordan. During 2007 it will be necessary to tender for a technology that supports the IBTS stated policy in this area.

The IBTS has seen a year on year increase in the use of platelets in Irish hospitals and to meet the continuing demand and to fulfil the policy of 100% platelets by apheresis we developed a partnership with the Irish Cancer Society to increase the number of donors and platelet

production through apheresis. This partnership has proven very successful and will deliver an expected 2000 additional donors in the coming three years.

The implementation of eProgesa has been problematic. This project has been delayed on a number of occasions and at year end its continuation was in doubt. Unless a definitive go-live date can be agreed early in 2007 then a decision will be required on whether to discontinue the project.

### PILLAR 4 - ORGANISATION DEVELOPMENT

The IBTS relies solely on its staff to provide the highest standard of service to our donors and patients. This commences at the recruitment stage and continues through the lifecycle of the organisation with appropriate training and development across all grades and levels. A number of initiatives have commenced during 2006 to improve the environment for staff and to provide a better service to our donors and patients.

These initiatives include revised management structures and organisation of work. Work was undertaken by Deloitte in reviewing the management structures, particularly in light of the Kubanek Report and the necessity to have a cohesive national organisation. The proposed structure was finalised in 2006 and will be implemented during 2007.

The Health Services are implementing a Performance Management System and the IBTS has commenced pilot programmes in this area. This is one of the areas which was highlighted by staff during the climate survey and will significantly improve communication and setting of targets with appropriate feedback.

**CHANGE PROGRAMMES** – there are a number of significant change programmes underway within the organisation. There will be changes for staff in a number of areas which will improve the delivery of services, improve the responsiveness of the organisation to our customers and provide greater job satisfaction for staff through a better working environment and increased

expertise and skills. There will need to be a major investment in training and development across the organisation to ensure that these change programmes come to fruition and deliver on their stated objectives.

**PARTNERSHIP** – there has been an active partnership group within the IBTS and this continued to develop during 2006. It is the desired way of delivering change and the IBTS has actively pursued this forum as a vehicle for achieving change across all sections of the organisation.

**VALUES** – during 2006 there were a number of workshops involving senior management and the Partnership Steering Group to examine and develop a set of values for the IBTS. Values are an essential element to underpinning the vision and mission of the organisation and set out what the organisation stands for and how it intends to carry out its business on a day-to-day basis. At year end much work had been done on agreeing a set of six values which are (i) Excellence in Service (ii) Respect, (iii) Honesty (iv) Teamwork, (v) Learning and (vi) Accountability.

The next stage of development is to define and agree a set of behavioural indicators which will underpin these values and then to engage with staff in embedding these values within the organisation. This will form an essential part of changing the culture of the IBTS and improving the environment for staff where diversity and exchange of views are recognised as essential components of day to day working.

The changes in the IBTS and in general in blood transfusion continue unabated. The IBTS is well placed to meet the challenges both from a product safety perspective and providing excellent service to our patients and donors. This has been achieved through the dedication and commitment of all staff in the organisation. I commend them for their efforts and look forward to our working together to achieve further advances that will develop the IBTS into a world class transfusion service.

**Andrew Kelly**  
Chief Executive



Blood transfusion remains an essential part of modern health care, and it remains the case that this most vital treatment for tens of thousands of people a year in Ireland relies absolutely on the good will and altruism of ordinary men and women towards people they do not know and will never meet.

# National Medical Director's Report

## Sharing knowledge and expertise worldwide – a world leader in best practice

The inexorable drive to increase the safety, efficacy and supply of blood transfusion continued through 2006. This drive will remain the predominant characteristic of the operating environment of blood transfusion in Europe for years to come.

Over the last number of years, it has become apparent that the practice of taking blood from about 75 million apparently healthy people every year worldwide and then transfusing it to tens of millions of other, ill people gives rise to an inevitable risk. This is that any new, emerging infection in humans can be spread through blood transfusion before the true nature, or perhaps even the very existence, of the disease, is known or understood. This is particularly the case for diseases with long incubation periods during which the blood donor is apparently well. It happened for HIV and Hepatitis C; it could have happened for variant CJD, and it may well happen again. To address this, several strategies are necessary – active surveillance and early warning for any new emerging disease or other adverse effect of transfusion, early adoption of new techniques to identify or exclude known methods of transmission of infection, rigorous quality control, and good clinical practice in blood transfusion.

Surveillance is a constant, worldwide activity that requires active links with public health bodies and blood services throughout the world. The IBTS maintains this link through several routes, with representation on professional committees and working groups in the UK, Europe and the USA, and with regular formal reviews of the world situation. The opening of the European Centre for

Disease Control in Stockholm in 2006 provides an additional tool for this vital activity, and a formal liaison between the European blood services and the Centre is currently under development.

Among the emerging infections worldwide, several caused concern in 2006. The threat of pandemic influenza required special attention and planning, including stockpiling of anti-viral drugs. A pandemic might reduce some need for blood transfusions in surgical patients, since hospitals would slow down the rate of non-urgent operations, but most blood transfusions go to trauma victims and to patients needing blood in association with medical or other complications. It would therefore be essential to keep the collection, testing and processing of blood donations going through a flu epidemic.

Crimean-Congo Haemorrhagic Fever virus caused a severe outbreak in Eastern Turkey during 2006, and led us to exclude anyone who had travelled there from donating for some time after their visit. We also introduced a ban on blood donations from people with extensive contact with non-human primates. It has become apparent that a virus called Simian Foamy virus infects some people with extensive contact with monkeys. While it does not cause any apparent disease, it does demonstrate once again that viruses can cross over to humans from

non-human primates with relative ease, and we took the precaution of closing off a potential route of disease transmission. Dengue in South America and South East Asia, South American Trypanosomiasis, and Chikungunya virus in the Indian Ocean all required heightened surveillance in 2006.

vCJD however remained the primary concern, heightened by the publication in May 2006 in the British Medical Journal of a study that indicated that, in the UK at least, the number of people who may transmit the disease may be higher than generally thought, and that for some people the incubation period of the disease may be 30 years or more. This underscored the need for continuing the search for strategies and techniques to limit the threat of transmitting this disease by transfusion.

The IBTS began a clinical trial of a new filter at the end of 2005 that was intended to remove infectious prions, the agent that transmits vCJD, from blood transfusions. This trial, conducted in association with the Haematology Department of University College Hospital, Galway, was the first of its kind in the world. Unfortunately, in parallel laboratory studies undertaken by the filter manufacturers, it became apparent that the final filter design lacked the prion-removal capability of the earlier prototypes, so the trial was concluded early in 2006. However the experience with this new class of device was invaluable, and will allow us to respond even more rapidly as new filters become available in the future. As this report goes to press, a second trial of red cell transfusions treated by a new prion-removing filter is beginning at Cork University Hospital.

During 2006 the IBTS continued to develop and introduce techniques to increase our capacity to detect or eradicate infections, both those we know about, and those we do not, in blood transfusions. An automated technique for single donor nucleic acid testing - the most sensitive approach there is for detecting viruses in the blood of donors - underwent extensive validation and evaluation at the IBTS in 2006 and into 2007. While this technology is the most sensitive method for detecting HIV, Hepatitis C

and Hepatitis B virus in blood donors, it has the additional advantage of being rapidly adaptable to detect any new infections that emerge in the future, well in advance of the older, antibody-based technologies.

Blood transfusion remains an essential part of modern health care, and it remains the case that this most vital treatment for tens of thousands of people a year in Ireland relies absolutely on the good will and altruism of ordinary men and women towards people they do not know and will never meet. As the surrounding technology gets more and more complex, this strange truth at the heart of the matter remains constant – every week thousands of people in Ireland roll up their sleeves in a huge commitment to their fellow human for no reward other than some vague, ill-defined, feeling that they are doing good. Without that, and in spite of all the resources spent on providing it, health care as we know it simply could not exist.

### **Dr William Murphy**

National Medical Director

MD, FRCPEdin, FRCPath



On behalf of the patients whose lives have been made better by that gift, the IBTS would like to thank every donor who took the time and made the effort to attend one of our clinics in 2006. We look forward to seeing you again soon.

## Working to build donor loyalty

The Irish Blood Transfusion Service is the public sector body responsible for collecting, processing, testing and distributing blood and blood products in Ireland. The IBTS is entirely dependent on the generosity of donors to achieve this objective. In 2006, 95,168 donors attended and 151,728 donations were collected. These donations are collected at clinics all over the country, processed and tested in Dublin or Cork and distributed from Dublin and Cork to 67 hospitals, 24 hours a day, 365 days a year.

On behalf of the patients whose lives have been made better by that gift, the IBTS would like to thank every donor who took the time and made the effort to attend one of our clinics in 2006. We look forward to seeing you again soon.

The IBTS needs to collect 3,000 blood donations a week, every week. It is the responsibility of the Donor Services Department to ensure that sufficient numbers of donors attend clinics to collect this number of donations. Regional collection teams based in Ardee, Carlow, Cork, Dublin, Limerick and Tuam as well as fixed donation clinics at St Finbarr's Hospital Cork, D'Olier Street and Stillorgan in Dublin run clinics throughout the country to achieve this objective.

The marketing team supports this work by communicating the importance of giving blood regularly. During the year, they made numerous awareness presentations to schools and organisations as well as participating in promotions at colleges, shopping centres, at the Young Scientist Exhibition and the National Ploughing Championships.

The ferrying programme which is also managed by Donor Services provides companies with an opportunity to make blood donation a part of their corporate social responsibility commitments by giving staff the option to donate blood as a group during work time. In 2006, there was

an increase of 23% in the number of people attending the D'Olier Street and Stillorgan clinics through the ferrying programme.

World Blood Donor Day on 14th June was marked by the launch of the IBTS 'Give before you go' Summer Campaign. Traditionally, the summer is a difficult time for blood donation. Long evenings and warm weather have an adverse effect on blood donation. The campaign helped to ensure that the blood supply was maintained over the summer months.

Blood for Life Week was held from 10th to 16th September and Buddy Blood Drop dropped into the Air Corps in Baldonnell to launch this annual campaign.

The aim of Blood for Life Week is to increase public awareness about blood donation, to encourage people to become regular donors and to thank donors for their commitment and support.

IBTS partners for Blood for Life Week were Today FM, Vodafone and TV3.

### **NEW DONOR WELCOME PACKS**

A total of 23,260 donors attended an IBTS blood donation clinic for the first time in 2006.

It is a primary objective of Donor Services to

ensure that these donors return to give blood again and regularly thereafter for as long as they are eligible to give blood.

With this in mind a welcome pack was developed to acknowledge the effort made by the donor in attending a clinic and providing them whether they gave blood or not, with information about the need for blood donors, blood and blood components to service the demand from hospitals in treating patients.

A total of 14,651 welcome packs issued to new donors since April 2006. This is done on a monthly basis. This new initiative is a valuable tool in retaining and recruiting additional new donors.

The average age of the donors who gave blood in 2006 was 38 years and 43,678 or 46% of our donors were between the ages of 18 and 35 years.



When a person gives blood, a number of small blood samples are collected for testing purposes. The blood donation itself (470mls) is processed in the components laboratory and red cells, platelets and plasma are prepared for therapeutic use.

# Meeting the challenges

## Developments in collection, processing and testing

The fundamental challenge facing any blood transfusion service is how to maintain an adequate supply of blood and blood components to meet patient needs that is as safe as it can be.

Maintaining an adequate supply is the first challenge and the IBTS has initiated a donation process review to address some of the bottlenecks that can cause delays at clinics. People are now more than ever time poor and the IBTS is meeting this challenge by undertaking a major review of the donation process to deliver a more streamlined donation experience for donors.

Blood has a limited lifespan outside the body, therefore it is important that it be available to hospitals for transfusion as soon as possible after collection. The procedures operated by the IBTS ensure that donations can be issued to hospitals within 48 hours of collection.

Red cells are stored at 4°C and have a shelf life of 35 days. Platelets are stored at 22°C and have a shelf life of just 5 days or 7 days when they have been collected by apheresis and bacteriology tested.

When a person gives blood, a number of small blood samples are collected for testing purposes. The blood donation itself (470mls) is processed in the components laboratory and red cells, platelets and plasma are prepared for therapeutic use.

Testing and processing is carried out at the NBC in Dublin and the MRTC in Cork. NAT testing is carried out at the NBC only.

### AUTOMATED DONOR GROUPING

The Automated Donor Grouping laboratories carried out more than 2 million individual tests, including ABO grouping, Rhesus phenotyping and antibody screening/identification.

The ADG laboratories are constantly evaluating new types of tests and techniques used to keep up with international testing practices. In addition to the use of the Olympus 7200 automated Grouping instrument, the introduction of the Qasar IV allowed for more advanced antigen screening, antibody investigation and antibody titration. In addition, this instrument enables the department to introduce screening for haemoglobin S, the type of haemoglobin associated with Sickle Cell disease. The screening of selected donations for this trait will again improve the safety of blood and blood components issued by the IBTS.

### VIROLOGY

The virology laboratories receive a clotted sample from each donor taken at the time of donation. This sample is identified with a unique bar code identifier at the time of donation. The sample is tested for the presence of specific viral markers that may be transmitted by transfusion.

These tests are performed using the latest cGMP (good manufacturing practice) compliant

equipment. When all tests are complete and if satisfactory results are obtained, the unit is cleared and labelled for issue. The quality of the testing system is ensured by using standards from the 'National Institute of Biological Standards and Controls', as 'go/no go' controls on all testing runs.

This ensures that equipment is functioning to the highest standard. 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 Blood Service/ Health Protection Agency. The reactive rates for testing kits and confirmatory results using various lot numbers of reagents with the National Blood Authority are monitored. A notifying report is generated which details assay performance and trends in reactive rates.

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

- Hepatitis B including Hepatitis B surface Antigen and B core Antibodies
- Human Immunodeficiency Virus
- Hepatitis C Virus
- Human T Lymphotropic Virus
- Syphilis

Selected donations are tested for Cytomegalovirus in order to have a supply of Cytomegalovirus negative donations for those patients who need it. A serum sample is also stored frozen from each donation.

In addition to testing routine donor samples, the laboratory also tests samples from donors who were previously reactive on a screening assay.

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

## DIAGNOSTICS

The diagnostics laboratories provide red cell immunohaematology and antenatal reference services for hospitals nationwide.

These services include

- Provision of phenotyped blood
- Provision of crossmatched blood for difficult cases and for hospitals without blood transfusion laboratories
- Investigation of antibody problems
- Investigation of haemolytic transfusion reactions
- ABO/Rh typing including typing problems
- Investigation of positive Direct Antiglobulin Tests (patients)
- Investigation of Autoimmune Haemolytic Anaemia
- Investigation of Haemolytic Disease of the Newborn (HDN)
- Prevention of HDN by routine Antenatal Screening for at risk pregnancies. (Includes the quantitation of Anti-D 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 dependent patients

In addition to the above reference services, the diagnostics laboratories also control the issue of all platelet products (including CMV negative, irradiated orders, neonate suitable products) and the issue of special provision red cell products (including CMV negative, irradiated, neonate suitable).

The diagnostics laboratories participate in internal and external proficiency test programmes (UK NEQAS) for red cell antibody investigations and Anti D Quantitation. The MRTC in Cork provides a cross match and reference service for a number

of hospitals in the Munster Region which do not have their own diagnostics laboratory.

### **BLOOD COMPONENTS**

The blood components laboratories are responsible for the processing of all blood donations. Each donation is filtered to remove the leucocytes and processed to produce red cell concentrates, buffy coats for pooled platelet production, and some plasma for pooled cryoprecipitate production. A limited contingency stock of fresh frozen plasma is also maintained.

A number of specialised products suitable for neonatal use are produced on a made-to-order basis. During 2006 a project to introduce semi-automation was initiated in blood components. An extensive process mapping exercise was commenced.

### **NATIONAL HISTOCOMPATIBILITY AND IMMUNOGENETICS REFERENCE LABORATORY (NHIRL)**

This national reference laboratory 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 Hospital for Sick Children, Crumlin. The laboratory HLA types all patients and donors (both related and unrelated) prior to transplantation to aid donor selection.

The laboratory uses exclusively molecular methods such as PCR-SSO and PCR-SSP to define the genes that encode the HLA molecules. This new improved technology has led to higher resolution typing, improved definition and greater HLA allele identification. The laboratory also provides an immunogenetics testing service for disease association studies, the Irish Unrelated Bone Marrow and Platelet Registry (IUBMR) and for the laboratory investigation of alloimmune thrombocytopenia.

The laboratory has performed several studies with Irish hospitals to demonstrate the role of HLA genes in disease susceptibility. In addition, a platelet immunology service for the

serological investigation of neonatal alloimmune thrombocytopenia (NAITP), post transfusion purpura (PTP), platelet refractoriness, alloimmune thrombocytopenias and adverse transfusion reactions is also provided. The laboratory conducts statistical analysis and publishes Irish population frequency data. The laboratory also has an extensive quality assurance programme and was first accredited by the European Federation for Immunogenetics (EFI) in 2001.

The number of samples referred to the NHIRL for testing has increased by 40% since 1999. By far the most significant trend was the record number of unrelated donor workups performed – a 62% increase on 2005. In addition, there were also a significant increase in the number of high resolution HLA typings for HSCT and disease association studies and HPA typings for the investigation of NAITP.

The NHIRL introduced the HLA Matchmaker algorithm in April to aid the identification of suitably HLA matched platelets for patients with alloimmune platelet refractoriness. The laboratory has now completed HPA phenotyping of all current NBC plateletpheresis panel and has HLA-A, B typed the active donors for the provision of matched platelets. Five new alleles were identified in the laboratory in 2006 – B\*5711, B\*5524, B\*4449, A\*2461 and DRB1\*1374.

### **NUCLEIC ACID TESTING LABORATORY**

The Nucleic Acid Testing (NAT) laboratory located at the NBC brings cutting edge technology to current blood screening practices by combining advanced nucleic acid testing technology within a unique, single-tube system. Current available screening technologies are designed to detect core antibodies or surface antigens. However these infection indicators leave a small residual risk for disease transmission. NAT detects very low levels of viral RNA that may not be detectable through current approved serological assays.

The NAT laboratory tests all donations using the Chiron Procleix HIV-1/HCV Assay. This assay is a qualitative in-vitro nucleic acid testing

assay system for the detection of human immunodeficiency virus type 1 and/or hepatitis C virus RNA in human plasma. This assay is highly sensitive and specific for viral nucleic acids and is capable of detecting infection earlier than other screening methods, thus narrowing the window period. An archive sample is retained on all donations.

Prevention of cross-contamination within the laboratory itself and also between processed samples is critical to the success of NAT testing.

Every donation collected in 2006 was tested in the laboratory and there was no requirement to invoke the contingency testing plan which the IBTS has with the Scottish National Blood Transfusion Service. The NAT laboratory participates in two proficiency programmes, one circulated by the National Institute for Biological Standards and Control in the UK and the second by VQC-Acrometrix in the Netherlands.

The NAT laboratory also participates in a QA programme (EDC.net) provided by the National Serology Reference Laboratory (NRL, Australia) which is regarded as a world leader. The NRL is a WHO Collaborating Centre and its Quality

Control programmes provide a mechanism for laboratories to monitor the day to day quality of their testing processes. The laboratory runs an Internal Competency Scheme where the competency of each operator to perform the Procleix HIV-1/HCV assay is assessed each quarter and a statistical process monitoring programme is in place.

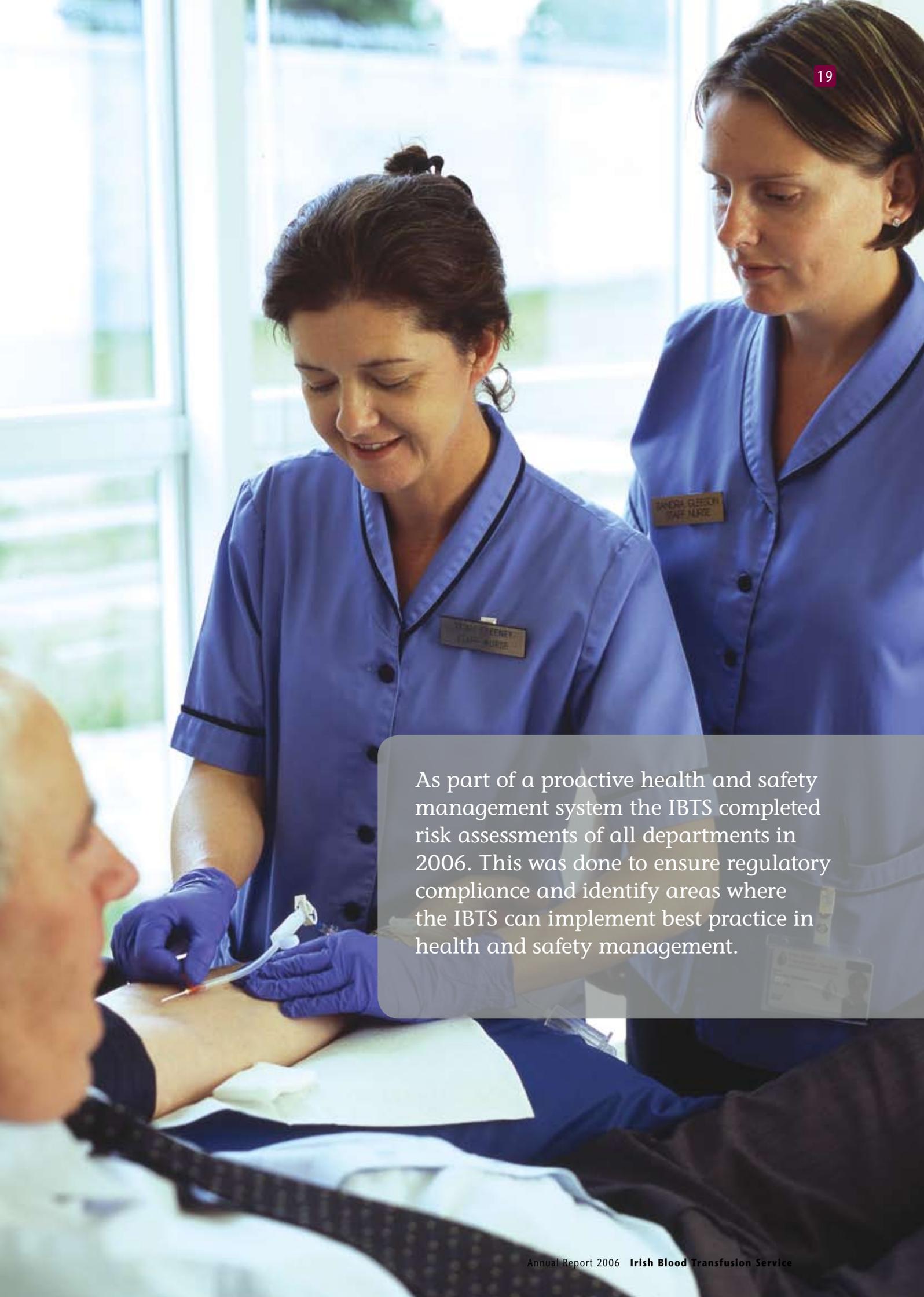
In addition the NAT Laboratory participates in External Quality Assessment Schemes (EQAS):-

- a) National Institute of Biological Standards and Control (NIBSC) HCV-RNA Proficiency Panel.
- b) NIBSC HIV – 1 RNA Proficiency Panel

### HOSPITAL SERVICES

The essential link in the chain between the hospitals and the IBTS is the hospital services department, who are responsible for the safe and secure distribution of all products released for treating patients. In 2006, a review of transport and the distribution function was initiated.

PRODUCT	2006	2005
Red Cells & Whole Blood	138,540	139,314
Platelets - Therapeutic Doses	20,355	19,777
Frozen Plasma	707	455
Octaplas	25,425	24,880
Cryo Depleted Plasma	1,143	291
Cryoprecipitate	1,984	
Factor VIIA (xIU)	519,600	424,080
Anti Thrombin III (x IU)	48,376	79,850
Factor VIII Recombinant (x IU)	22,641,750	21,031,000
Von Willebrand Factor (x IU)	478,500	543,000
Factor IX Recombinant (xIU)	8,570,370	10,970,280
Prothromplex (x IU)	537,600	459,600
Factor XIII	7,500	9,750

A photograph showing two female nurses in blue scrubs performing a procedure on a patient's arm. The nurse in the foreground is wearing purple gloves and is focused on the task. The nurse in the background is looking on. The patient is lying down, and the scene is set in a bright, clinical environment with large windows in the background.

As part of a proactive health and safety management system the IBTS completed risk assessments of all departments in 2006. This was done to ensure regulatory compliance and identify areas where the IBTS can implement best practice in health and safety management.

## Developing the people for the service of the future

The IBTS recognises that the process of delivering a consistent, safe supply of blood to patients in hospitals is dependent on the generosity of our donors and the dedication and commitment of our employees. The human resources team plays its part in this process by developing and implementing a human resource strategy which sets out clear aims and objectives that recognise our staff as a key resource in the delivery of that high quality service.

Through consistent, timely recruitment processes and through a focused training and development strategy we aim to have the right people with the right competencies working effectively in cross multi-disciplinary teams. The ethos of continuous improvement is a goal to be nurtured and supported into the future and the HR team have an important role to play.

Induction training for new staff was completely overhauled in 2006 and a comprehensive redeveloped Corporate Orientation Programme (COP) was introduced. This programme runs over two and a half days and addresses all mandatory policies and health and safety training for new staff. In 2006, all new staff attended COP and some existing staff who had not completed all of the required training attended the relevant modules. In total, 117 staff attended COP in 2006.

As part of the donation process review, 11 clinic staff commenced FETAC Level 5 accreditation which includes venepuncture and donor screening and FETAC Level 7 accreditation for Team Leader training. Team based performance management was initiated on a pilot project basis.

Good Manufacturing Practice (GMP) a back to basics course was completed by 500 staff. A module covering Good Distribution Practice

(GDP) was successfully completed for staff involved in hospital services, transport and delivery.

### **OCCUPATIONAL HEALTH**

The IBTS strategy is to provide a progressive occupational health service based upon injury and illness prevention with processes fully integrated into the overall health and safety management system.

During 2006 the IBTS offered a series of health promotion activities including awareness campaigns on smoking cessation, cancer awareness and diabetes awareness. A series of workplace smoking cessation programmes were offered to staff at a national level.

The IBTS offered flu vaccinations to all staff during the flu season and 15% of IBTS staff participated in the vaccination programme. The IBTS also extended the Hepatitis B vaccination programme to include all staff who may have potential to be exposed to the virus.

### **SAFETY AND INDUSTRIAL HYGIENE PROGRAMMES**

Industrial hygiene is defined as the science devoted to the anticipation, recognition, evaluation and control of environmental stresses in the workplace that may cause sickness in workers or the general public.

The IBTS monitors and assesses activities to determine if industrial hygiene assessment is required. Such hazards may include potential exposure to chemical vapours, noise exposure, repetitive strain disorders, manual handling and workplace ergonomics.

### **RISK ASSESSMENTS**

As part of a proactive health and safety management system the IBTS completed risk assessments of all departments in 2006. This was done to ensure regulatory compliance and identify areas where the IBTS can implement best practice in health and safety management.

### **WORKPLACE ERGONOMICS**

During the year, 38 ergonomic workplace assessments were completed. Staff were advised and counselled on correct workstation ergonomics to reduce the potential for ergonomic injuries.

The IBTS is in the process of developing a pilot elearning programme to ensure all staff are trained on how to complete workstation ergonomic assessments and to proactively reduce the incidence of ergonomic injuries. The IBTS has also trained a number of staff as VDU Assessors in each regional centre.

### **MANUAL HANDLING**

The IBTS Parent Safety Statement requires all staff to undergo manual handling training. A series of manual handling training courses were held during the year. The IBTS will include manual handling training as part of the induction programme.

### **HEALTH AND SAFETY TRAINING AND EDUCATION**

The IBTS has continued with a comprehensive safety and health training programme. Thirty health and safety training courses were offered in 2006 and 640 IBTS employees attended.

### **COMMUNICATION**

One of the key objectives for 2006 was to develop strategies for more effective

communication and accountability of health and safety duties and responsibilities, workplace hazards, safety policies and procedures and other health and safety-related issues. These are:

- The establishment of local area Health and Safety Committees.
- Dissemination of health and safety information to all regional centre locations.
- Encouraging participation of regional centres in the IBTS annual Health and Safety Week.
- Increase the number of health and safety courses available to IBTS staff.
- Reporting health and safety programme development initiatives and updates to staff. Updating staff on monthly accident /incident statistics.

### **NATIONAL ENVIRONMENTAL HEALTH AND SAFETY STEERING COMMITTEE**

The IBTS set up the Environmental, Health and Safety Steering Committee in 2006.

One of the aims of the steering group is to make sure EHS costs and benefits are properly identified and taken into account in every relevant proposal for capital expenditure. The committee also monitors progress towards the achievement of EHS objectives and targets.

### **ACCIDENT/INCIDENT INJURY REPORT PROGRAMME**

In 2006 the IBTS introduced a new accident / incident reporting programme. The purpose of the updated programme is to ensure that the IBTS is getting complete and accurate information regarding accidents and incidents so that frequency can be reduced.



Continuous improvement is effected throughout the IBTS in a number of different ways but particularly through the Quality Management System.

# Quality Assurance

## A culture of continuous improvement

The regulatory environment for the production of blood and blood components has been transformed by the introduction of the EU Directive on the quality and safety of human blood and blood components, by Statutory Instrument 360 of 2005. Under this new regulatory regime, a common standard is being introduced for all blood establishments across the EU.

The Irish Medicines Board (IMB), the Competent Authority for Blood and Tissue in Ireland carried out 4 comprehensive inspections of IBTS facilities in Cork and Dublin during 2006. As well as measuring the compliance with Good Manufacturing Practice (GMP), the IMB inspected the IBTS as a blood establishment, under the requirements of SI 360 of 2005 – (Regulations on Quality and Safety of Human Blood and Blood Components). The IBTS was licensed by the IMB as a Blood Establishment on 14th July 2006. Compliance with the regulations was found satisfactory by the IMB.

An application was submitted in October 2006 by the IBTS to the IMB under SI 158 of 2006 (Regulation of Quality and Safety of Human Cells and Tissues) for a license as a Tissue Establishment for Cord Blood, Ocular Tissue and Human Cardiovascular products.

Continuous improvement is effected throughout the IBTS in a number of different ways but particularly through the Quality Management System. This was achieved through the raising of change controls and non conformances in that preventative as well as corrective action flows from in-house investigations.

During 2006 there were 324 change controls raised at a national IBTS level. These dealt with matters as varied as the introduction of new

technologies/tests such as syphilis testing, prion filtered products for clinical trials, the introduction of new weigher mixers at clinics, software upgrades and the donation process review.

At local level there were 419 change controls raised at MRTC and 405 raised at NBC. These mainly dealt with changes/improvements to SOPs within the Quality Management System but also included the introduction of significant modifications to the irradiator at MRTC to ensure a more consistent product and at the NBC the introduction of QASAR technology to enable IBTS to perform sickle cell testing in house.

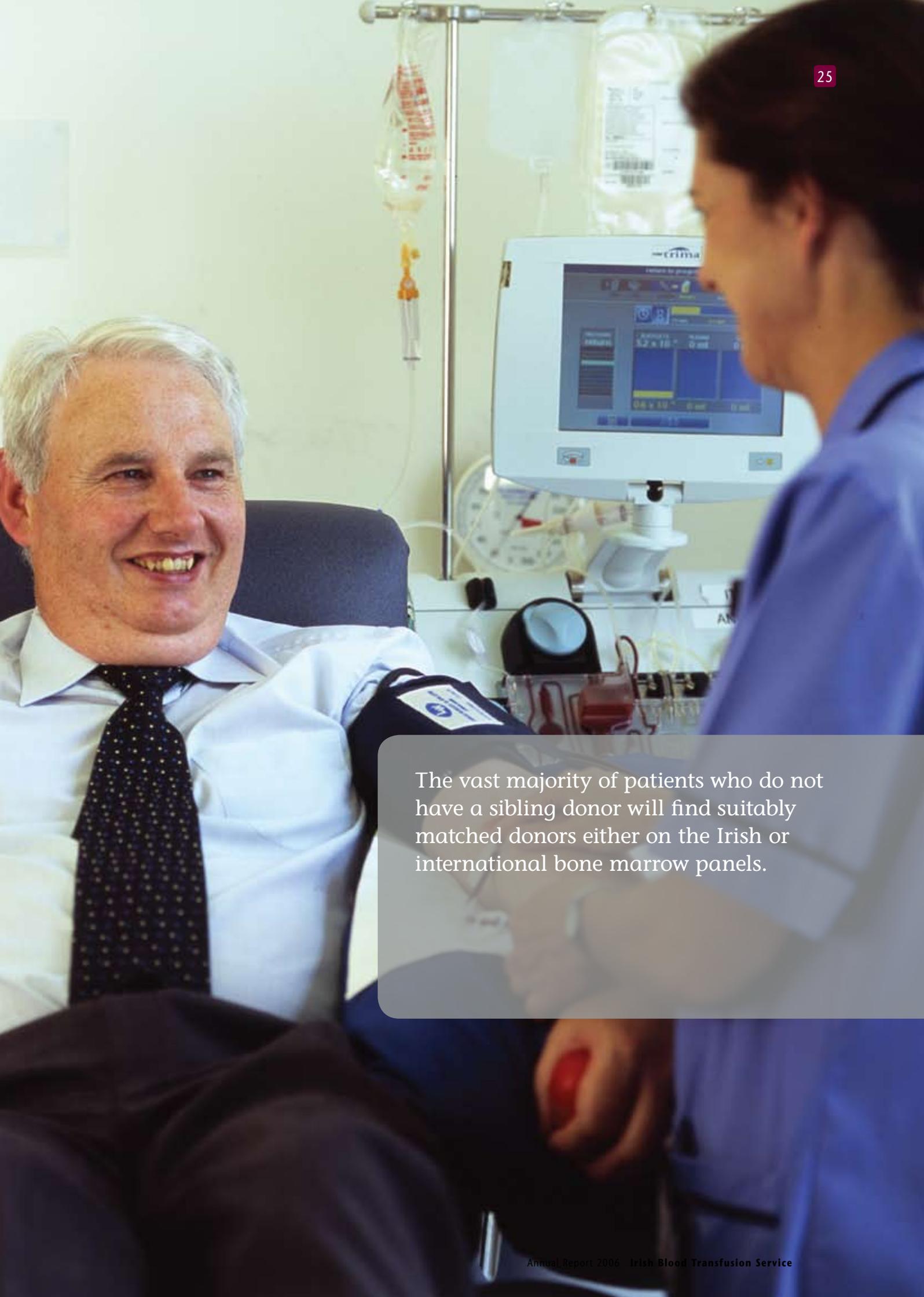
While non conformances by definition are issues arising from non-adherence to process or procedure, they provide an opportunity to effect improvements. Through root cause analysis, issues are scrutinised with a view to putting preventative measures in place to prevent reoccurrences. Through regular quality meetings at both centres, focus is kept on major non conformances and trending of all non conformances.

During 2006, there were 891 non conformances raised in NBC and 703 raised in MRTC. Product recalls can result from the non conformances system but mainly arise from information received from donors post donation.

Approximately 55% of recalls initiated in 2006, were preventative in nature in that they stemmed from information received from donors post donation. A total of 83 recalls were instigated by MRTC during 2006 and 256 recalls originated in the NBC. Suspected bacterial information was the second major cause of recalls during 2006. These were in the main preventative in nature.

Validation of all GMP critical systems prior to introduction into the IBTS assures robustness of new/upgraded technologies. There were a total of 120 validation plans raised throughout the year, and 133 validation change control plans associated with change controls. So while improvements are continuing, we assure through compliance with cGMP, that change is effected through a controlled, documented, compliant methodology.

The IBTS also continuously monitors its operation through independent audit by the Quality Assurance function. In 2006, there were 38 internal audits carried out covering activities ranging from clinic operations to product processing and testing and despatch of product to customers.



The vast majority of patients who do not have a sibling donor will find suitably matched donors either on the Irish or international bone marrow panels.

## Improving patient outcomes

The IBTS is involved in a number of activities besides the provision of blood and blood products that directly effect patients every day. The IBTS is the home of the Irish Unrelated Bone Marrow Registry, the Irish Directed Cord Blood Bank, the National Haemovigilance Office and the Therapeutic Apheresis Service. The IBTS also operates a tissue banking service, storing cardiovascular and ocular tissue on behalf of hospitals. The delivery of these services is vital to the treatment and recovery of many patients.

### IRISH UNRELATED BONE MARROW REGISTRY

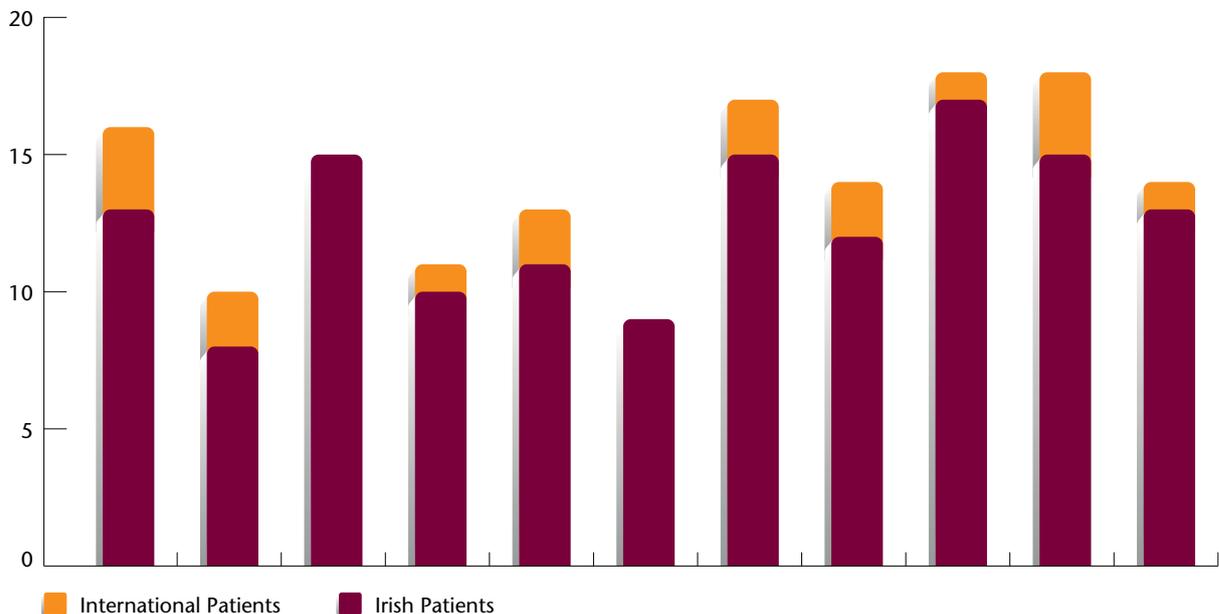
The Irish Unrelated Bone Marrow Registry (IUBMR) was set up in 1989 to provide a panel of volunteer donors for Irish and international patients requiring stem cell transplantation as a curative therapy for some malignant haematological conditions such as leukaemia and for some inherited metabolic disorders. The vast majority of patients who do not have a sibling donor will find suitably matched donors either

on the Irish or international bone marrow donor panels.

To date the IUBMR has facilitated 190 transplants. Of the 190 transplants, 160 were for Irish patients and 30 for International patients.

In 2006 the registry facilitated 14 transplants on behalf of Irish (13) and International (1) patients. Of the 14 transplants, 10 were bone marrow transplants, 3 were peripheral blood stem cell transplants and 1 was a cord blood transplant.

#### IUBMR TRANSPLANTS FACILITATED 1996-2006



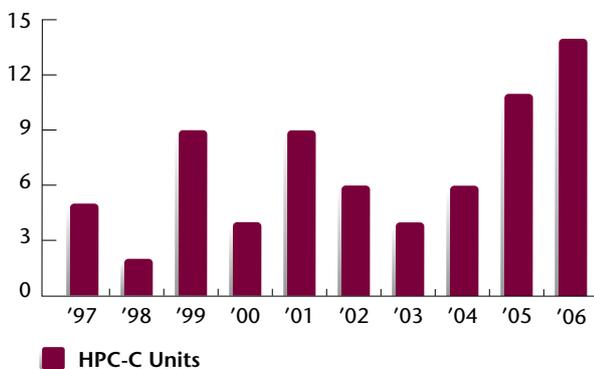
## REGISTRY ACCREDITATION

The IUBMR is affiliated to the World Marrow Donor Association (WMDA), an organisation which sets operational standards for bone marrow registries. In 2006 the IUBMR submitted an application for accreditation with the World Marrow Donor Association. There are about 60 stem cell registries worldwide and if successful the Irish registry will be one of nine registries to have achieved accreditation.

## HPC-C BANK

The HPC-C Bank facilitates the collection and cryopreservation of directed HPC-C donations. The HPC-C must be intended for a sibling of the newborn, who has a condition for which a stem cell transplant may be a curative treatment. The collection of the cord blood unit must be requested by a bone marrow transplant physician. During 2006 14 HPC-C units were collected and processed.

HPC-C UNITS 1997 - 2006



## THERAPEUTIC APHERESIS

Therapeutic apheresis is a service provided by the IBTS to hospitals in Dublin and Cork. The service is led by an IBTS consultant haematologist and treatment is managed and provided by nurses trained in therapeutic apheresis procedures. It is a mobile service and equipment is transported to the hospital for treatment at the patient's bedside. The procedures performed include:

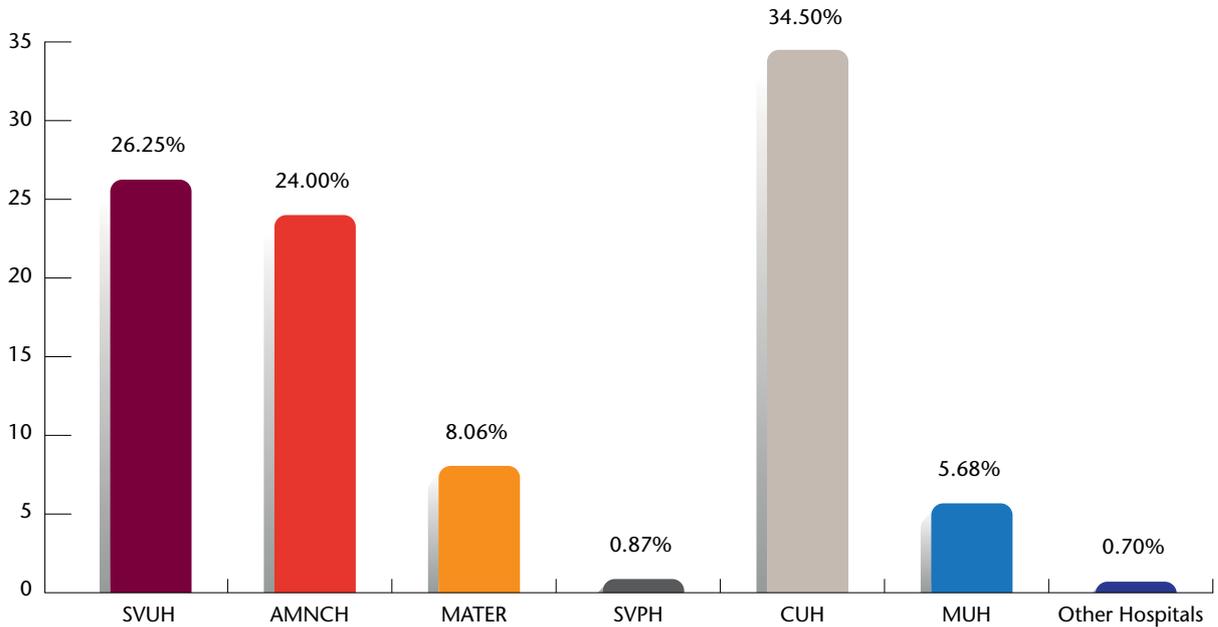
- Plasma Exchange
- Leukoreduction
- Red Cell Exchange
- Red Cell Depletion
- Platelet Depletion

PROCEDURE TYPE	NUMBER OF PROCEDURES
Plasma Exchange	578
Platelet Depletion	1
Red cell exchange	2
Leukoreduction	2
<b>Total Procedures</b>	<b>583</b>

The table above displays the procedural type and number of procedures performed by the therapeutic apheresis service from both centres.

Plasma exchange accounted for 99% of all procedures. The number of procedures performed in 2006 increased by 8.1% from the previous year.

**PROCEDURES BY HOSPITAL**



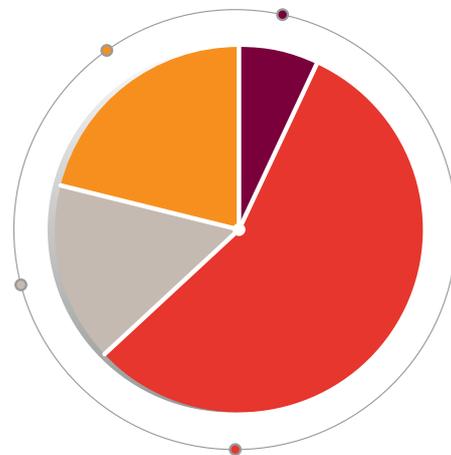
**PROCEDURES BY HOSPITAL**

Requests are taken from all hospitals in the Dublin and Cork areas and each case is assessed for treatment. SVUH accounted for 26.25%, AMINCH 24%, Mater Hospital 8.06%, SVPH 0.87% and in Cork, CUH 34.5% and MUH 5.68% and other hospitals 0.7%

**CLASSIFICATION OF PROCEDURES**

An on-call service is provided at weekends and some procedures are carried out outside normal working hours to meet patient needs. Cases are therefore classified into 4 categories; Emergency, Urgent, Elective and Maintenance.

**CLASSIFICATION OF PROCEDURES**



■ Emergency ■ Urgent ■ Elective ■ Maintenance

**ACTIVITY ANALYSIS**

In 2006 the total of emergency/urgent cases carried out at weekends / bank holidays accounted for 14.4% of activity.

NO. OF PROCEDURES	CLASSIFICATION			
	Emergency	Urgent	Elective	Maintenance
583	42	327	92	122

## **NATIONAL HAEMOVIGILANCE OFFICE**

The National Haemovigilance Office (NHO) was set up in 1999 and in the six years from 2000/2005 a total of 1044 serious adverse transfusion reactions/events have been reported to the NHO.

During 2006, the EU Blood Directive 2002/98/EC and Commission Directive 2005/61/EC came into force making reporting of serious adverse reactions and events relating to the quality and safety of blood components mandatory. During 2006 the NHO focussed on supporting hospitals in meeting this requirement through an extensive national hospital visit programme, in-house open days, participation in education and information meetings, EU Directive Information Workshops organised between the IBTS and the Department of Health and Children and through the NHO Annual Conference "Haemovigilance – The Challenge of the EU Directive" held in Portlaoise in October, 2006.

Presentations at the Conference included an explanation by Ms. Marcia Kirwan, NHO of the contents of the Haemovigilance Handbook, designed to help with the reporting of Haemovigilance incidents. Ms. Mairead Sheahan NHO gave details of the reportable reactions and Ms. Jackie Sweeney, NHO, gave an overview of the completion of the Annual Notification of Serious Adverse Reactions, a necessary requirement under the Directive. The training implications of the EU Directive were identified by Ms. Hazel Reid of Kerry General Hospital. Dr. Emer Lawlor, NHO Director presented the NHO Annual Report 2005.

Dr. Ellen McSweeney Consultant Haematologist IBTS gave an overview of Donor Haemovigilance in Ireland and Ms. Marina Cronin NHO presented her findings of research into education and how people gain their knowledge.

Dr. Maeve Leahy, Consultant Haematologist, Midwestern Regional Hospital acted as adjudicator for the poster competition and presentations were also given by Ms. Martina O'Connor University College Hospital, Galway,

Mr. John Sheehy, Cork University Hospital and Ms. Sheila Joyce, Limerick Regional Hospital

The educational initiative with Dublin City University (DCU) for health care workers interested in haemovigilance practice continued with both professional development modules 'Understanding and Management of Blood Transfusions in a Haemovigilance Context' and 'Haemovigilance: Blood Transfusion Nursing' fully subscribed.

The findings from the Near Miss Project into Transfusion Related Near Miss Events funded by the IBTS were presented at the UK SHOT Near Miss Workshop in November 2006 and a paper based on the findings was accepted for publication in the international transfusion journal Vox Sanguinis.

## **NHO OFFICE REVIEW**

At the request of the Department of Health and Children, Dr. Paul Strengers, Dutch Transfusion Service and the European Haemovigilance Network (EHN), carried out an overview of Haemovigilance Operations in Ireland during a three day visit in July 2006. This included a full review of the working of the NHO during which Dr. Strengers examined areas such as operations and practice development, and held meetings with senior IBTS Management and representatives of both the IMB and the Department of Health and Children. An audit of NHO incident management and data input was also carried out. Another key aspect was visits to, and interviews with, hospital based haemovigilance officers (HVOs) in a variety of hospitals.



The goal of the Donation Process Review is that 'it will only take one hour of your time to be part of an extraordinary team.'

## Measuring our success

As part of the donation process review a detailed questionnaire was distributed at a number of clinics, to acquire a baseline assessment from donors of how clinics work. The questionnaire sought to establish donor satisfaction levels on a number of issues such as:

- Overall service
- Waiting times
- Clinic opening hours
- Venue

In total 777 completed donor clinic attendance forms were returned. These give times of attendance and duration in IBTS clinics. 400 completed customer survey results were analysed. 134 responses included donor comments or suggestions.

### THESE ARE A SELECTION OF THOSE COMMENTS:

'Compliment the IBTS staff for their courtesy and professionalism in the job they do'

'Staff extremely friendly and welcoming that's very important'

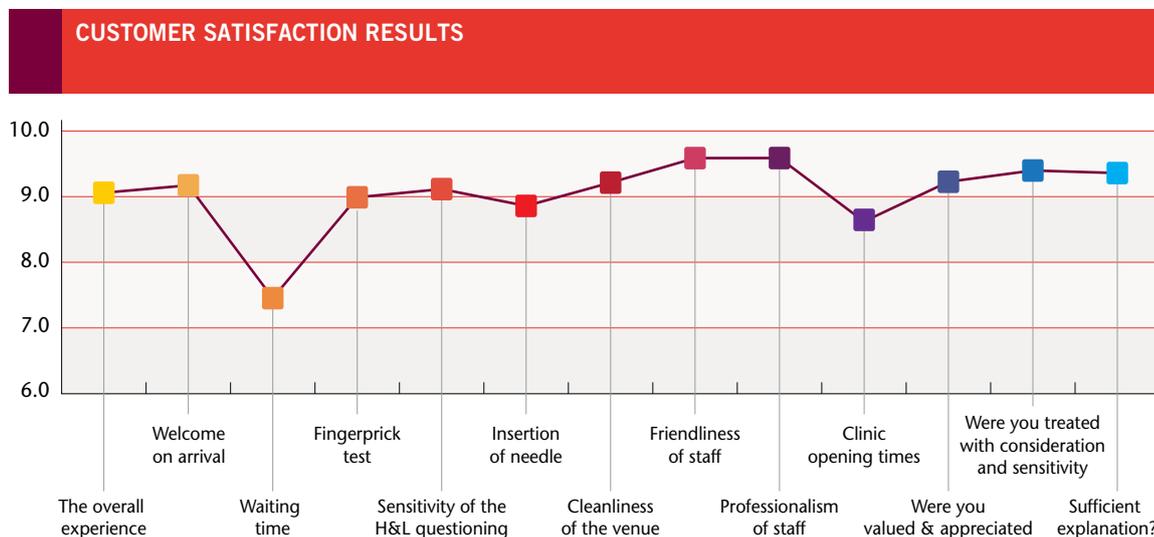
'Staff made the experience very pleasant'

'It would be nice to have earlier opening hours for people on shift'

'Cut the waiting time, different opening hours'

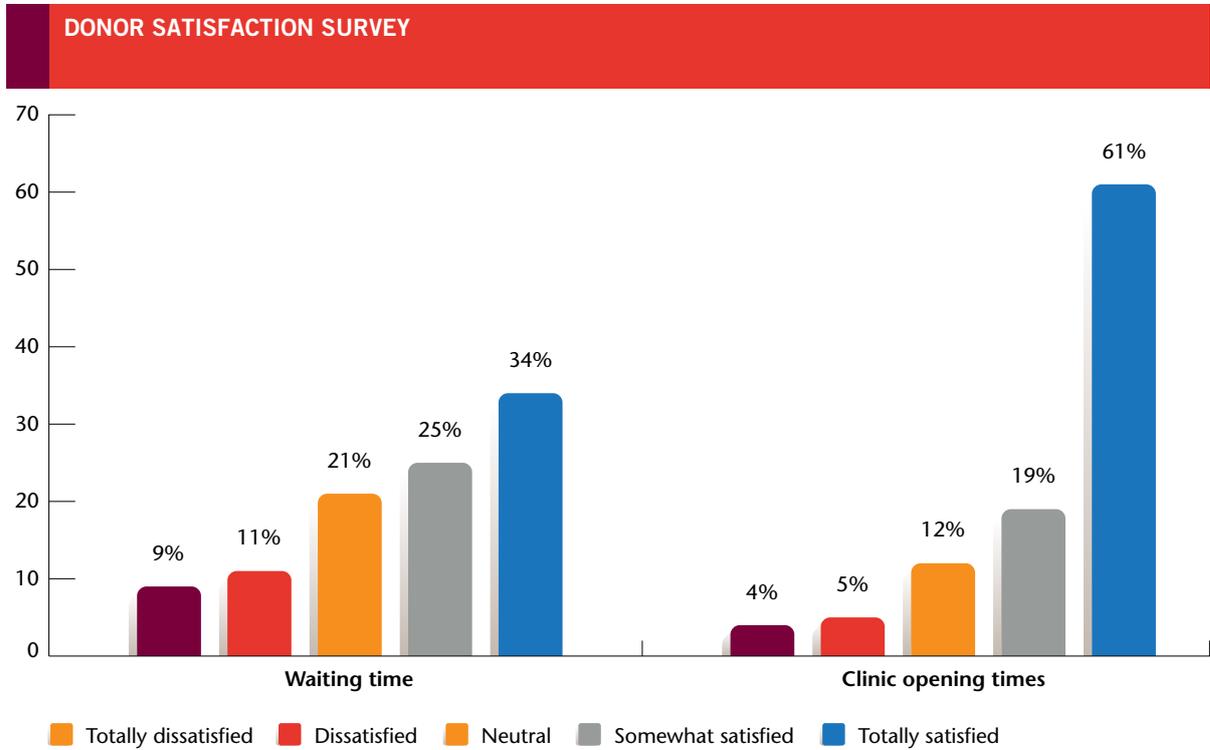
'Introduce a queue numbering system and display so donors know where they are in the queue'

The two highest scoring questions were the professionalism of staff and friendliness of staff, while the two lowest scoring questions were the waiting times and clinic opening hours.



## DONOR SATISFACTION SURVEY

This survey is the benchmark against which changes introduced through the donation process review will be evaluated.





Text messaging has proven to be a powerful channel of targeted communication to specific groups of donors.

## Delivering the message

The IBTS continues to develop its relationship with Vodafone Ireland. This is a unique and rewarding partnership for the IBTS. In 2006, Vodafone published their corporate social responsibility report and the text messaging service for donors was highlighted.

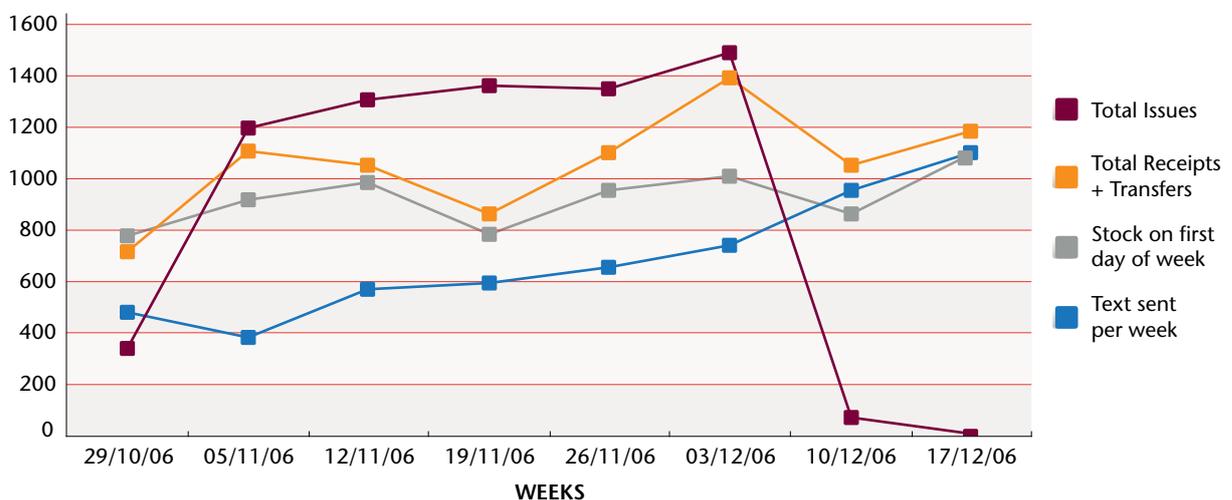
Vodafone Ireland has agreed to continue supporting this project for the next 3 years, donating one million free texts a year to the IBTS. This means that the IBTS can send up to 20,000 texts to donors every week. During November, there was a fall in O positive stock and the impact of a text campaign to target O positive donors to address the shortfall is clearly illustrated in table below.

For the first time ever the IBTS joined forces with the Irish Cancer Society, the national cancer care charity, to call for more people to become platelet donors. Platelets are a component of blood that play a vital part in the treatment of cancer.

As treatment for cancer improves demand for platelets continues to increase. The demand for platelets in Ireland has increased by 50% over the past 5 years largely because of the number of new cases of cancer and the numbers of people undergoing chemotherapy. The IBTS needs at least 22,000 donations of platelets per year in order to meet this demand. On average the IBTS issues approximately 90 units of platelets per day (over 500 units per week) to Irish hospitals and 90% of these are used in the treatment of cancer patients.

Platelets are a component of blood and are essential to enable the blood to clot properly. Chemotherapy often damages the patient's

### NOVEMBER 2006 O POSITIVE TEXT ANALYSIS



bone marrow cells where the platelets are made and make the patients prone to spontaneous bleeding. Cancer patients, especially leukaemia patients often therefore depend on platelet transfusions while they are undergoing chemotherapy. A leukaemia patient for instance, undergoing chemotherapy, may need between 4 and 10 platelet transfusions per week. A patient undergoing a bone marrow transplant may need up to 60 units of platelets. There are approximately 380 new cases of leukaemia diagnosed every year.

To meet the demand for platelet transfusions in Ireland the IBTS collects platelets in two ways; pooled and apheresis. Pooled platelets are processed from whole blood donations. It takes four whole blood donations to produce one unit of platelets for patients. Apheresis is a special type of donation which separates the platelets from the rest of the blood during donation. An apheresis donation collects the same amount of platelets as those pooled from 8-12 whole blood donations.

The IBTS is endeavouring to limit patients' exposure to many donors; collecting platelets through apheresis is preferable to provide the safest possible product for the patient. The shelf-life of pooled platelets is only five days and the shelf-life of apheresis platelets can be extended from five to seven days.

At present, only about 40% of platelets supplied to Irish hospitals are collected by apheresis and it is the aim of the IBTS in association with the Irish Cancer Society to recruit about 2,000 new platelet donors in order to supply 100% apheresis platelets within the next 3 years.

## **AWARDS AND RECOGNITION - DONOR AWARDS**

Every year, the IBTS organises a number of awards ceremonies around the country to recognise the precious gift donors make when they give blood. These ceremonies are marked by the presentation of a gold drop for 50 time donors or a porcelain pelican for 100 time donors.

Recipients of blood and blood products are often invited to speak, to tell their story and how much they value the contribution donors make.

Awards ceremonies were in held in Dublin, Cork, the South East, North East and the Mid West. In total 695 donors were presented with a gold drop for fifty donations and 74 donors were presented with a porcelain pelican for 100 donations.

## Implementing best practice in waste management

The National Waste Management Committee adopted the following waste management principles:

- Prevention
- Minimisation
- Re Use
- Recycling
- Energy Recovery
- Disposal



The Committee has also introduced the binless office, which has been extremely successful.

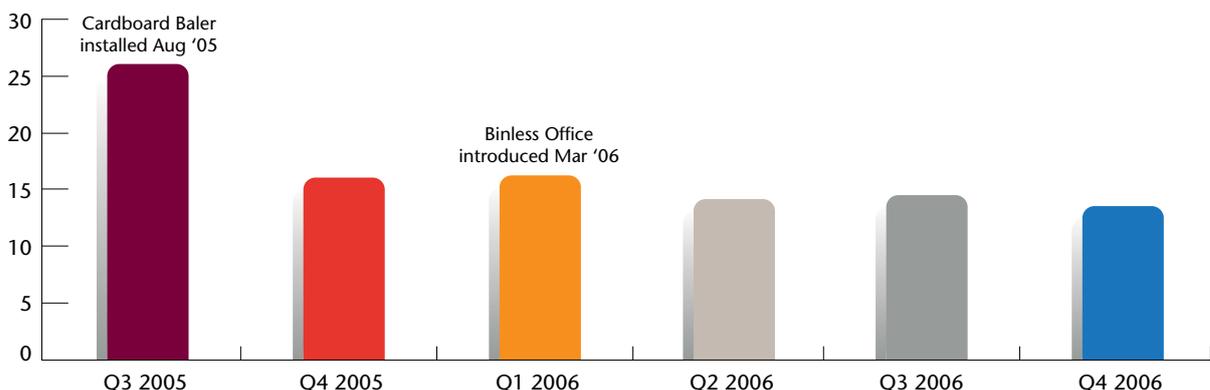
A National Waste Management Committee was established to examine and assess how the IBTS is managing its waste. The Committee has recruited Green Team leaders in each regional centre to promote environmental awareness and to provide feedback to the Committee on waste management initiatives that could be implemented at a national level.

A number of initiatives have been implemented. The IBTS held a logo competition to brand the initiatives and the successful logo was one of 35 submitted by staff. The IBTS has identified green teams in each centre and held a national green day. The Committee has successfully introduced

green principles to procurement policy and encourages paperless meetings.

The Committee has developed the IBTS Waste Management Policy and has undertaken both clinical and non-clinical waste audits. Members of the Committee have also undertaken a waste characterisation study to determine if waste being generated is being segregated correctly and effectively in an attempt to reduce the amount of waste being sent to waste landfill. The IBTS introduced the binless office for non-clinical waste in March 2006. See table below for the impact of this policy.

### GENERAL WASTEGOING TO LANDFILL



# Finance

FINANCE	2006	2005
	€'000	€'000
<b>Income</b>		
Recurring income	101,790	101,137
Non-recurring income	390	270
Total Income	102,180	101,407
<b>Expenditure</b>		
Total expenditure	99,955	96,330
Surplus for year	2,225	5,077
Actuarial gain / (loss) on pension scheme	314	(4,051)
Transfer to Capital Reserve	-	(5,000)
Transfer to Research Reserve	(752)	-
Accumulated reserve at 1st January	2,166	6,140
Accumulated reserve at 31st December	3,953	2,166

## INCOME

The Board's total income for 2006 of €102.1 million (2005 €101.4 million) is analysed into recurring income and non-recurring income.

Recurring income consists of revenue generated from products and services provided to hospitals of €101.7 million (2005 €101.1 million). The Board did not increase its prices for 2006 from 2005 levels; accordingly all increases are due to increased activity. No direct funding was received, during 2006, from the Department of Health and Children in relation to expenditure incurred on the Hepatitis C programme.

Non-recurring income during 2006 includes interest earned on bank deposits and proceeds from the sale of fixed assets.

## EXPENDITURE

Expenditure for 2006 amounted to €99.9 million, which is an increase of €3.6 million on 2005.

Increased expenditure in the year mainly related to implementing national pay agreements within the organisation and additional depreciation costs due to increased investment in assets over the last number of years. In addition an amount of €730,000 was written off during 2006 in respect of eProgesa, which was an upgrade of our blood management system.

Financial reporting standard 17 'Retirement Benefits' (FRS 17) was introduced in November 2000. However the Irish Blood transfusion service, elected to continue to account for its pension obligations under SSAP 24 Accounting for Pension Costs and to disclose the impact of FRS 17 in the notes to the financial statements. FRS 17 was fully implemented for the financial year ended 31 December 2005, the Board now accounts for pensions in accordance with FRS 17.

During the year the Board decided to set up a research reserve fund. €750,000 was transferred

to this fund for the year ended 31st December 2006. The Board also has a Capital reserve fund for the development of new facilities in Cork. €5 million was transferred to this fund for the year ended 31st December 2005.

### **CAPITAL EXPENDITURE**

Expenditure of €3.4 million was invested in capital projects during 2006. The main investments were in improving information technology systems particularly the introduction of an electronic document management system totalling €1.24m. This project is ongoing and has not yet been capitalised. During 2006 an additional €250k was spent on the eProgesa project however, as a result of continuing technical difficulties this project has been suspended. Other expenditure included the residual elements of our technology systems migrating to windows XP, upgrading our premises and significant investment of €1.42m in equipment to support on-going organisational activities.

### **FINANCIAL SYSTEMS**

During the year an automated system, called Transfere, for claiming and processing travel and subsistence expenses, was implemented throughout the organisation. This was a significant development in the continued improvement in processes and controls within the finance department.

### **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 the date of 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 2006, under the terms of applicable legislation, a total of 363 invoices to the value of €2,318,390 were late, by an average of 50 days. These invoices constituted 2.6% by number and 2.95% 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 €12,613. The Board continuously reviews its administrative procedures in order to assist in minimising the time taken for invoice query and resolution.

# 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 and Children.

The Board attended a workshop on Corporate Governance on 16th May 2006 to review performance in this area. At the end of the workshop a number of decisions were made in relation to the conduct of Board business and areas to be addressed in the coming year. A commitment was also made to review performance in this area on a regular basis.

## COMPLIANCE WITH THE CODE OF PRACTICE FOR THE GOVERNANCE OF STATE BODIES

The Board is committed to complying with the relevant provisions of the Code of Practice for the Governance of State Bodies, published by the Department of Finance in 2001.

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.

## WORKINGS OF THE BOARD

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

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

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

## MEDICAL ADVISORY COMMITTEE

The Medical Advisory Committee is comprised of the medically qualified members of the Board and the medical consulting staff and meets on a monthly basis. 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 five times during the year and is comprised of three members of the Board. It is also attended by the Chief Executive, National Medical 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, management accounts, insurance, procurement, treasury policy, capital expenditure, costing exercises and banking and

financing arrangements. 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.

### AUDIT COMMITTEE

The Audit Committee met four times during the year and is comprised of three members of the Board and one independent external member. It is also attended by the Chief Executive, the National Medical Director, the Director of Finance, the HR Director, the Management Accountant and the Internal Auditor. The Committee may review any matters relating to the financial affairs of the Board. It reviews the annual financial statements, reports of the Internal Auditor, 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 financial statements. The Audit Committee operates under formal terms of reference.

### RISK REGISTER

The risk register identifies strategic, clinical, 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 reviewed and updated regularly by the Business Review Group to ensure 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 members are responsible for internal control in the IBTS and for reviewing its effectiveness. The Board's system of internal financial control comprises those controls established in order to provide 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 and monthly monitoring of performance against budgets
- 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
- Monthly stock takes carried out by staff independent of stores staff
- Payment verification of supplier invoices by senior staff independent of accounts payable staff
- Financial system possesses verification checks and password controls
- Regular monitoring of credit control function
- All despatch dockets for issues of products are matched to their relevant invoices to ensure all the board's activities are fully billed
- All purchase orders signed by purchasing officer
- Stock items are requisitioned by means of automatic ordering

- All non stock invoices signed and coded by budget managers
- All stock invoices independently matched with stores GRN

The Board are 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.

### MEMBERS OF THE BOARD

#### MS MAURA MCGRATH

Reappointed as Chairperson for 3 years 01.09.06

MR DAVID KEENAN Reappointed 22.09.06

MR DAVID LOWE Reappointed 01.12.06

MR SEAN WYSE

MS JANE O'BRIEN

DR MARY CAHILL

DR CEES VAN DER POEL Reappointed 01.06.06

DR ROB LANDERS Appointed 12.06.06

DR MARGARET MURRAY Appointed 01.09.06

MS MARGARET MULLETT Appointed 01.09.06

MR GERRY O'DWYER Appointed 01.09.06

MR MARK MORAN

#### MR TONY MCNAMARA

Appointment ceased 31.05.06

DR MARY HORGAN

Appointment ceased 31.05.06

DR LIZ KEANE

Appointment ceased 19.04.06

DR MELANIE COTTER

Appointment ceased 24.05.06

### AUDITORS

Comptroller and Auditor General

Treasury Building

Lower Castle Yard

Dublin Castle

Dublin 2

### SOLICITORS

McCann Fitzgerald Solicitors

Riverside One

Sir John Rogerson's Quay

Dublin 2

### BANKERS

Allied Irish Bank

Dame Street

Dublin 2

# Contact Details

## Irish Blood Transfusion Service

### **NATIONAL BLOOD CENTRE**

James's Street, Dublin 8  
t: 01 4322800  
f: 01 4322930  
e: info@ibts.ie  
www.ibts.ie  
aertel p691  
Donor infoline 1850 731 137

### **MUNSTER REGIONAL TRANSFUSION 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

### **CARLOW CENTRE**

Kernanstown Industrial Estate  
Hackettstown Road  
Carlow  
t: 059 9132125  
f: 059 9132163

### **LIMERICK CENTRE**

Carrig House  
Cloghkeating Ave  
Raheen Business Park  
Limerick  
t: 061 306980  
f: 061 306981

### **TUAM CENTRE**

Unit 49  
N17 Business Park  
Tuam  
Co Galway  
t: 093 70832  
f: 093 70587

## Notes

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