

TRANSFUSION TODAY

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ISBT



Transfusion Transmitted Infectious Diseases

A look inside the research and
teamwork of the ISBT WP-TTID

Transfusion-Relevant
Bacterial Strain Panel

HBV Safety

Earthquake 2010
in Concepción, Chile

World Blood Donor Day 2010



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*Test in development. Not available in the USA.

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Judith Chapman

Editorial

As I write this the International Congress in Berlin was only a month ago. It was a great success, the best attended, the most exhibitors and new innovations in the scientific programme that were much appreciated by the delegates. Poster award prizes were introduced and those who won were thrilled as you will read from their comments; for many of the winners it was their first International Congress and they really appreciated having their scientific work recognised.

The focus section has been put together by Silvano Wendel, our President and also Chairperson of the Working Party on Transfusion Transmitted Infectious Diseases. This is one of the biggest working parties and has a number of active task groups. I hope you find the information informative and useful.

The Regional pages include short articles on the 2010 World Blood Donor Day celebrations and with thanks to Diana Teo, many photos from the Western Pacific Region. There is also an interesting report from Cristina Martinez on how the Concepcion Transfusion Centre coped when the earthquake struck the city in March this year. It is definitely all about being prepared.

Currently the Central Office is working hard on the preparations for the 21st Regional Congress in Lisbon, Portugal. We hope that you have marked the dates June 18 – 22, 2011 in your diary. Preparations are also going well for our 22nd Regional Congress in Taipei, November 20 – 23, 2011.

I am already looking forward to the next issue of Transfusion Today which will include a focus on Clinical Transfusion put together by the new Working Party on Clinical Transfusion.

Introduction

ISBT Working Party on Transfusion Transmitted Infectious Diseases (WP-TTID)

The ISBT Working Party on Transfusion Transmitted Infectious Diseases (WP-TTID) held its Annual Meeting 2010 in Berlin on June 26-27, with over 60 participants. The Organizing Committee thanks all WP members, observers and guests for their participation and contribution to this meeting. The series of nine short, but very interesting and updated articles published in this issue of Transfusion Today reflects just a glimpse of what was discussed in Berlin, now available to all ISBT members.

As chair of the WP-TTID, I'd like to express my gratitude to all authors who contributed to this issue, and also to thank Prof Kurt Roth, who recently ended his term as Corporate representative, and welcome John Saldanha as the new member of the Organizing Committee. Together with Emma Castro, Ravi Reddy, Celso Bianco, and our assistant Kathrin Henke, I am proud to realize how productive this WP has been in these past years. This is the outcome of a teamwork, where all members have continuously contributed to our activities. I am sure that those who attended the WP-TTID meeting in Berlin had really a very interesting time, with excellent sessions and discussions. In the end, we had the opportunity to hold our Social Event in the historic Cecilienhof castle in Potsdam, an unforgettable place.

Chair: Silvano Wendel
Secretary: Emma Castro
Individual Member Representative: Celso Bianco
Treasurer: Ravi Reddy
Corporate Member Representative: Kurt Roth
Assistant: Katherine Henke



Celso Bianco, MD
America's Blood Centers,
Washington, DC, U.S.A.

Is XMRV a Potential Risk for Blood Transfusion?

In October 2009, an article published in the respected scientific journal *Science* indicated that a recently recognized retrovirus named XMRV (for xenotropic murine leukemia virus-related virus) was associated with 67% (68/101) of patients with Chronic Fatigue Syndrome (CFS), also known as myalgic encephalomyelitis. The authors also identified viral sequences in 3.7% of normal blood donors. XMRV had been associated in the past with prostate cancer. It is a gammaretrovirus, is widespread, and is not an oncogene, i.e. it does not cause cancer by itself. No inbred or wild mouse strains have been found to carry the exact XMRV sequence; thus, mice are not the immediate source of infection.

CFS has worldwide distribution and causes unexplained, persistent fatigue that is not relieved by rest and includes muscle pain, headaches and tender cervical and axillary lymph nodes. There are between 1.2 and 4 million individuals affected by the disease in the U.S. The incidence in females is 6 times higher than that in males. While a causative infectious agent has been suspected, the central issue in CFS research is whether it, or any subsets of CFS, represents discrete nosologic and pathologic entities, as opposed to a debilitating but nonspecific response triggered by a variety of stimuli.

Interestingly, several recent studies have failed to detect XMRV in patients with CFS or with prostate cancer. Attempts to explain the discrepant results include different case definitions of CFS which are based on clinical criteria, geography, different testing approaches and potential genetic variation of XMRV. The controversy became more intense recently when the lay press revealed that the publication of a study carried out at the U.S. National Institutes of Health that confirmed the results of the *Science* paper had been withheld from publication while further confirmatory studies are being carried out.

Based on the *Science* paper, a committee of the U.S. Department of Health and Human Services recommended the precautionary deferral of individuals with the diagnosis of CFS from donating blood. The AABB, a professional standard setting organization in the U.S. prepared informational materials and recommended the indefinite deferral of donors who voluntarily disclose that they have or have had CFS. The Transfusion

Transmitted Diseases Committee of AABB posted a fact sheet on XMRV on its website. Donor deferral for a history of CFS has also been implemented in parts of Canada, Australia, New Zealand and the UK.

It is theoretically possible that XMRV is transmissible by transfusion. However, clinical consequences of transmission have not yet been determined. In order to evaluate whether XMRV poses a threat to blood safety, U.S. governmental and non-governmental agencies have constituted a "Blood XMRV Scientific Research Working Group" that is preparing analytical panels to evaluate the performance of XMRV NAT and serological assays, and is planning clinical sensitivity and specificity studies using

"It is theoretically possible that XMRV is transmissible by transfusion. However, clinical consequences of transmission have not yet been determined."

pedigreed blood donor and clinical samples. Hopefully, this concerted effort will determine whether specific donor screening procedures need to be introduced.

Additional information

Fact Sheet on *Xenotropic Murine Leukemia Virus-Related Virus (XMRV)* <http://www.aabb.org/resources/bct/eid/Documents/xmrvfactsheet.pdf>, last accessed on August 3, 2010

July 26 - 27, 2010: Blood Products Advisory Committee Meeting – Xenotropic Murine Leukemia Virus-Related Virus (XMRV) – Informational Presentation <http://www.fda.gov/AdvisoryCommittees/CommitteesMeetingMaterials/BloodVaccinesandOtherBiologics/BloodProductsAdvisoryCommittee/ucm218968.htm>



Jean Pierre Allain, for the Subgroup on HBV Safety

Prion Reduction of Red Blood Cells

International Forum, Vox Sanguinis 2010

Report from the ISBT WP TTI Subgroup on HBV Safety (2006-2010)

It is now very likely that the infectious agent responsible for variant Creutzfeldt-Jakob disease (vCJD), a fatal disease of the brain, can be passed from person to person through blood transfusion and that this infectious agent is present in the blood of affected individuals long before clinical signs of the disease become apparent. This has led to major concerns that a pool of such infectious, symptomless individuals could exist in the general population and that some of these individuals could be routinely donating blood leading to further cases of transfusion related person to person disease transmission.

In the UK to date, four instances of probable transmission of vCJD by blood transfusion have been identified by the TMER, including three clinical cases of vCJD and a sub- or preclinical infection.

“One method of preventing transfusion related disease transmission would be routinely screening all blood donations for the presence of infectious prions.”

Recently, a fifth case of vCJD has been identified with a history of blood transfusion in infancy. The donors who provided the components transfused could not be identified, but a blood donor known to have donated blood to another individual who subsequently developed vCJD could have been a donor to the index case (*Chohan G. et al. Transfusion 2010 Mar 5 ahead of print*).

In February 2009, it was announced that PrP^{Sc} infection was found in the spleen of a 74 years old neurologically asymptomatic patient with hemophilia, who had received units of FVIII concentrate prepared from plasma pools known to include donations from a vCJD donor. He had also received 14 units of RCCs. (*Peden et al. Haemophilia, 2010;16:296-304.*)

One method of preventing transfusion related disease transmission would be routinely screening all blood donations for the presence of the infectious agent. Several techniques aim to detect PrP^{Sc} in blood, but none have reached the licensing stage for human use. Dr Roger EGLIN, Head of the National Transfusion Microbiology Labs from NHSBT England, gave a presentation on the current position of serological vCJD assays.

A different approach is to reduce prion infectivity from blood and blood components. At present, companies have developed filters to remove infectious prions from red blood cells (RBCs). In addition, manufacturers of pooled plasma and plasma products have been introducing specific steps to remove infectious prion agents from their products.

Such a Prion Removal Device may be implemented in some countries on RBCs in the near future. It seemed therefore of interest to collect information on this development in an International Forum. The group has been working on propositions of questions to be sent to the experts in the field.

The subgroup was constituted in 2006 prompted by the development of HBV NAT in many areas of the world, particularly areas with high prevalence in Europe, Asia and Africa. The NAT safety approach as an alternative to anti-HBc has the advantage of identifying the highly infectious window period cases. The main issue addressed by the group was the confirmation and classification of yield NAT cases containing HBV DNA but negative for HBsAg. Such a task was made challenging by the very low viral load (<1000 IU/mL, median 10 IU/mL) and therefore distinguishing between true infection, false positive and contamination. Within true positive, window period infections were to be distinguished from ‘occult Hepatitis B virus infections’ or OBI and within OBIs, between several subgroups identified according to HBV serological markers and results of follow-up testing. To cover these objectives, new methods were developed to improve assay sensitivity, to quantify viral load and to develop alternative PCR methods enabling strain sequencing, genotyping and identification of specific mutations. The second main objective was to determine the mechanisms underlying the genesis of OBI. The last objective was to determine the infectivity of OBIs by transfusion using lookback studies.

Since HBV NAT yield cases were relatively uncommon (1:600 to 1:20,000 donations depending on infection prevalence and dominant genotype), a global network of interested blood centres was formed totalling 47 in 4 continents. NAT screening was done locally as well as testing for serological markers and lookback exercises. A central molecular laboratory located in Cambridge, UK received samples for confirmation, quantification and sequencing. To date, 423 samples were processed as well as 583 HBsAg positive controls. 58% were confirmed OBI and 10% WP infections. Genotypes were A1, A2, B, C, D and E (A2 and D in Europe, B and C in the Far East, A1 and E in Africa). 95 full genome OBI sequences were obtained, all from samples with viral load <200 IU/mL. The analysis of this considerable and unique material provided the basis for the identification of at least 6 different origins of OBI:

insufficient immune control; escape mutants, HBV vaccine escape mutants, defective viral replication, inhibition of HBsAg translation and primary OBI. Lookback studies to determine OBI infectivity were scarce because of cost and potential legal actions against participating hospitals. However, on the basis of few cases, anti-HBc only OBIs had 10-20% infectivity by transfusion but anti-HBs positive OBIs had infectivity below 5% depending on anti-HBs titre.

The data collected by the study group was published in 16 articles: 1 in 2006, 1 in 2007, 5 in 2008, 4 in 2009 and 5 so far in 2010. In addition, 10 scientists were trained to transfer the HBV molecular methods to their own laboratory in Poland, Italy, Czech republic, Malaysia, Hong Kong, Brazil, Sudan, Syria.

The activities of the HBV safety subgroup were supported by grants from ISBT Foundation, the National Health Service Blood and Transplant, England, Novartis and Bio-Rad.

References

- Brojer et al. *Hepatology* 2006; 44: 1666-74.
- Allain JP. *Vox Sanguinis* 2007; 89: 254-7.
- Zahn A et al. *J Gen Virol* 2008; 89: 409-18.
- Wendel S et al. *Transfusion* 2008; 48: 1602-8.
- Candotti D et al. *J Hepatol* 2008; 49: 537-47.
- Levicnik-Stežinar S et al. *J Hepatol* 2008; 48: 1022-5.
- Raimondo G et al. *J Hepatol* 2008; 49: 652-7.
- Meldal B et al. *J Gen Virol* 2009; 90: 1622-8.
- Allain JP et al. *Hepatology* 2009; 90: 1868-76.
- Candotti et al. *J Hepatol* 2009; 51: 798-809.
- Garmiri P et al. *J Gen Virol* 2009; 90: 2442-51.
- Grabarczyk et al. *J Viral Hepatitis* 2010; 17: 444-52.
- Gonzalez R et al. *Transfusion* 2010; 50: 221-30.
- Yang et al. *Transfusion* 2010; 50: 65-74.
- Niederhauser C et al. *Vox Sanguinis* 2010; 98: 504-7.
- Meldal B et al. *J Viral Hepatitis* 2010 epub.

Establishment of a Transfusion-Relevant Bacterial Strain Panel

The main activity of Subgroup on Bacteria during the past years focussed on the problem that no transfusion-relevant bacterial strain panel exists as a tool for development, validation and comparison of both bacterial screening and pathogen reduction methods. Therefore, the ISBT WP-TTID organised an international validation study implementing especially selected and characterised bacterial strains.

Four Blood Transfusion Bacteria Standards (BTBS, one strain each of *Staphylococcus epidermidis*; *Streptococcus pyogenes*; *Klebsiella pneumoniae*; and *Escherichia coli*) were explored prior to the study regarding their ability to grow up to high counts in PCs. Following a special procedure, they were manufactured as deep-frozen suspensions which are stable, shippable and exactly defined in count of living bacterial cells. The BTBS were blinded and distributed to 14 laboratories in 10 countries (Austria, Canada, China, Germany, Mexico, Poland, The Netherlands, UK, USA, and South Africa). The partner laboratories were asked to identify the bacterial species, to estimate the bacterial count (in five independent experiments) and to determine their ability to grow in PCs after low count spiking (0.3 and 0.03 CFU/mL). The latter simulates "natural" contamination occurring during blood donation in practice.

Data of identification and enumeration were received from 13 laboratories, data of growth ability from 12 laboratories within the fixed time frame. The BTBS were correctly identified in 98% of the cases (1 case reported as *Staphylococcus delphini* instead of the closely related *Staphylococcus epidermidis*). *Str. pyogenes* and *E. coli* grew up in PCs in 11 out of 12 laboratories (92.3%), *K. pneumoniae* and *St. epidermidis* replicated in all participating laboratories (100%). The results of bacteria counting were very consistent between laboratories: the 95% confidence intervals were for *St. epidermidis*: 1.19 - 1.32 x 10⁷ CFU/ml, *Str. pyogenes*: 0.58 - 0.69 x 10⁷ CFU/ml, *K. pneumoniae*: 18.71 - 20.26 x 10⁷ CFU/ml and *E. coli*: 1.78 - 2.10 x 10⁷ CFU/ml.

"The past years focussed on the problem that no transfusion-relevant bacterial strain panel exists as a tool for development, validation and comparison of both bacterial screening and pathogen reduction methods."

The study is understood as a pilot experiment (proof of principle) with the aim to demonstrate:

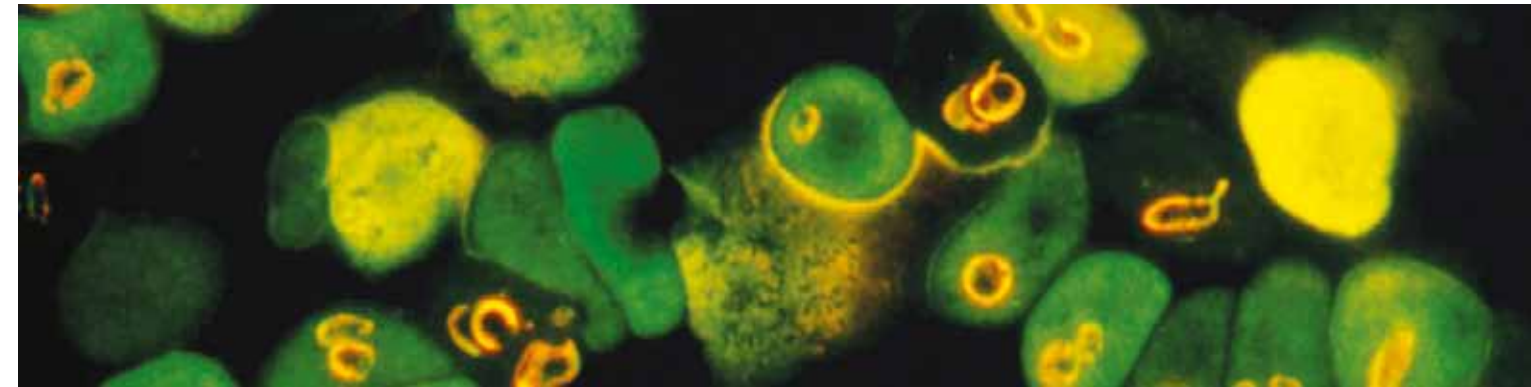
- A) Quality and stability of the bacterial strains as well as their suitability for defined low titre spiking of platelet concentrates.
- B) The property of the strains to grow up to high counts in PCs obtained from donors in different regions of the world (donor-independent proliferation).
- C) To train the logistics of worldwide shipping of deep frozen blinded pathogenic bacteria. These aims could be successfully fulfilled.

The study was submitted to WHO Expert Committee Biological Standardisation (ECBS) in October 2009 in order to establish a transfusion-relevant bacterial strain panel as an international reference material. The WHO ECBS endorsed the study as a project and discussed the prospective advancement. As intended from the outset, the panel has to be enlarged regarding the number of panel members as well as concerning the consideration of further blood components. This enlargement requiring another international validation study represents the current focus of the work of Subgroup Bacteria of ISBT WP-TTID. Furthermore, studies are planned to explore the suitability of the BTBS for validation and improvement of sterility testing of hematopoietic stem cells.



David A. Leiby, PhD, Chair,
Subgroup on Parasites

Summary of the Subgroup on Parasites



As part of the Annual Meeting of the ISBT Working Party on Transfusion Transmitted Infectious Diseases, the Subgroup on Parasites met in Berlin on 26 June 2010. The Subgroup on Parasites is focused on investigating the impact of a variety of parasitic agents, ranging from protozoan pathogens to nematodes, which may be transmitted to blood recipients through transfusion. Risks for contracting a parasitic infection by blood transfusion vary regionally, affecting developed and developing countries in similar, yet different ways. A primary task of the Subgroup is to understand the extent to which parasites pose transfusion risks to the ISBT membership and to investigate appropriate interventions through collaborative research efforts.

During the 2010 Annual Meeting, the Subgroup discussed their current project - the development of a survey to assess the impact of parasitic agents on transfusion practices in ISBT member countries and their approaches to preventing transmission of these agents. At present the survey focuses on the following agents/diseases: *Plasmodium* spp./malaria, *Trypanosoma cruzi*/Chagas' disease, *Leishmania* spp./leishmaniasis and *Babesia* spp./babesiosis, but other parasitic agents and their associated diseases can be considered. The questionnaire is designed to assess how frequently these agents are transmitted by transfusion, the epidemiology of the agent, existing policies to mitigate risk, testing methods and the public health perceptions of each agent in representative countries or blood collection organizations. The current challenge for the Subgroup is obtaining representative data from member countries, particularly when parasitic agents and assays designed to detect them may be regionalized. Also challenging, is the inclusion of developing countries, in which parasitic agents like *Plasmodium* spp. pose significant issues for blood safety.

The Annual Meeting of the Subgroup on Parasites closed with a brief scientific section that reviewed the status of *T. cruzi* in

non-endemic countries followed by a discussion of malaria in hyperendemic areas. Dr. Emma Castro of the Cruz Roja Española discussed the current status of *T. cruzi* testing in Spain where donors with risk factors for Chagas' disease (e.g., birth in an endemic country) are tested for *T. cruzi* antibodies. The Subgroup also learned that six cases of transfusion-

"A primary task of the Subgroup is to understand the extent to which parasites pose transfusion risks to the ISBT membership..."

transmitted *T. cruzi* have been reported in Spain. Dr. Azzedine Assal of the EFS was scheduled to update the Subgroup on *T. cruzi* testing in France, but unfortunately he was unable to attend the meeting. Dr. Susan Stramer of the American Red Cross briefly reviewed the current status of *T. cruzi* testing in the United States. Within the past year, most of the U.S. has begun testing selectively (testing each donor only once) with the exception of areas previously identified to have high rates of seropositivity among donors. For these selected areas (e.g., Southern California, portions of Florida, etc.) all donors are still screened for *T. cruzi* antibodies. The scientific session closed with an interesting presentation from Dr. Alex Owusu-Ofori from the Komfo Anokye Teaching Hospital in Ghana, who discussed the challenges of addressing transfusion-transmitted malaria in an endemic country where many blood recipients are routinely treated for malaria, unrelated to transfusion.



Kurt Roth, Ravi Reddy,
Henk Reesink, Steven Kleinman,
Syria Laperche, Michael Busch

NAT Tests: How far are we from global use?

It is now thirteen years since Nucleic Acid Amplification Technology (NAT) tests were first introduced for screening donor blood for viral contamination. The first few blood centres used in-house methods and tested donor blood on a voluntary basis. Several years later, commercial tests became available that were initially based on assays developed for patient diagnostics which lacked high throughput, and hence were applied to relatively large minipools of donor plasma samples. They were provided by only two companies which held the patents for PCR/Real-Time PCR (Roche) and HCV diagnostics (Chiron, later Novartis which developed NAT assays in partnership with Gen-Probe). Due to the patent situation, which will begin to change in 2011, these companies have shared 99% of the world NAT market, with Germany being the only exception where in-house tests are still in use for testing ¾ of the national blood supply.

A first international survey on NAT testing was organized in 2002 as a Vox Sanguinis International Forum (IF) which was published in 2003; a second survey update was published in 2005. These identified 11 high income countries, 8 from Europe, that had introduced HCV NAT. Five of these had also implemented HIV-1 NAT while only Germany also performed HBV NAT testing.

In 2009/10, the ISBT Working Party on Transfusion Transmitted Infectious Diseases (WP-TTID), subgroup on Virology, performed a more extensive survey (in terms of global outreach and level of detail) which will be published again as a Vox Sang International Forum in the near future. It employed an electronic questionnaire sent by E-Mail to experts in all countries known to have implemented or considering NAT testing. The focus was on details of recent data for a complete year (2008) to enable better comparison with previously published IF results and potential future cross-sectional data. This should allow for precise monitoring of the progress and development of a recent technology and its implementation in the blood transfusion field. In addition, yield data for the whole period since introduction of NAT testing were requested from each country.

The new IF survey shows that NAT testing has spread to all continents, as also documented by expanding publications from many countries. Almost all European countries perform NAT testing for HCV and HIV-1 including many of the new EU members. NAT testing has also been introduced in North America, at some hospitals in South America, in South Africa

and many countries in the Asia-Pacific region. In contrast to Europe and North America where HCV NAT yield cases are most frequent, HBV and HIV-1 are the most important targets in these regions and some of these “new” countries have taken the lead in introducing NAT testing for 3 parameters (including HBV) instead of only two (HCV and HIV-1). This is mainly attributed to their highly diverging epidemiology for the indicated viruses which also favours testing in very small minipools or even in single donations resulting in expanding implementation of individual donation NAT. Sensitivity for all parameters, particularly HBV, has been improved during recent years and automated systems are now available that no longer need to be operated by specifically trained experts or in specially designed facilities. NAT assays for additional viruses (in-house or commercial), including Parvovirus B19, Hepatitis A and E viruses, and West Nile, Chikungunya and Dengue viruses, have been developed and implemented in several impacted countries.

It is likely that NAT testing will continue to be implemented in many more countries and that recent very sensitive viral antigen and antibody/antigen combo assays will not replace NAT tests even in countries with restricted resources (additional studies being conducted by the WP-TTID demonstrate that less than half of HIV and HCV NAT yield donations could be detected by 4th generation Ag/Ab serological assays). Conversely, very sensitive and affordable NAT tests may replace antibody assays some day, because they allow for the precise identification and elimination of infectious units, reducing loss of antibody-only positives that are not infectious. This holds true especially for countries with medium and low income and high-level endemicity of relevant viruses. A new WP-TTID protocol (“Multi-center analysis of the efficacy and cost effectiveness of HBV, HCV and HIV blood screening scenarios based on observed yield with serologic assays and individual donation NAT”) has been launched that includes investigators from multiple participating laboratories worldwide that use ID NAT and chemiluminescent (or reasonably equivalent) serology assays. The primary aims of the protocol are: i) to compare the efficacy of different possible NAT and serology screening scenarios in first time and repeat donors for HIV, HCV, and HBV infection and ii) to compare the cost effectiveness of these scenarios. Efficacy is defined as the percentage of modelled transmission risk that is removed by a given testing strategy. A preliminary analysis of HIV testing data, primarily from South Africa, was presented at the recent ISBT meeting in Berlin, and results of the complete analysis should be available in 2011.

Assessing the cost utility of blood safety interventions using a web-based analysis tool

The purpose of the cost-utility analysis (CUA) subgroup of the working party (WP) on transfusion-transmitted infectious diseases (TTID) is to promote the relevance and use of standardized health economic methods in international blood safety. The group is composed of health technology assessment and infectious disease experts. The group has developed a user-friendly, online tool (see www.bloodsafety.info and www.bloodsafety.isbt-web.org) that enables health authorities or researchers across the globe to conduct country-specific analyses using a common set of underlying models and assumptions.

Although it is clear that a central priority in transfusion medicine is blood safety, less clear is which path achieves appropriate safety, the extent of necessary safety interventions, and in light of scarce resources what interventions are most efficient. Risk

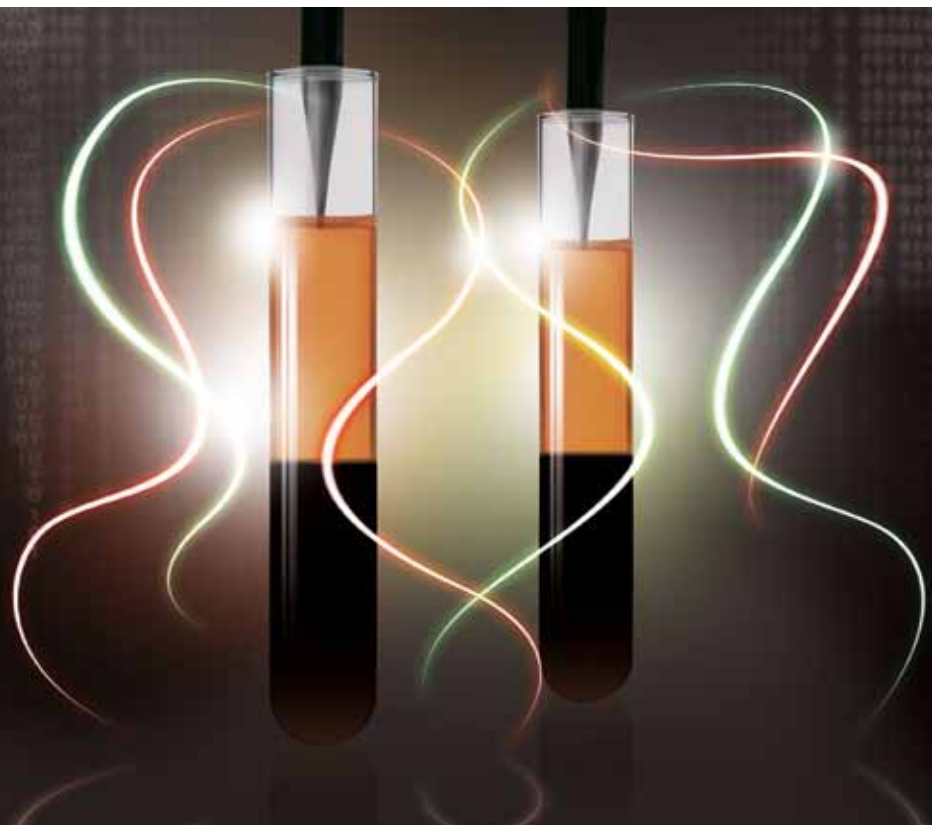
The CUA subgroup has developed the online interface by focusing on seven countries (Brazil, Ghana, Netherlands, South Africa, Thailand, Uganda and USA). Users of the web-based interface can perform risk assessment and cost-effectiveness analyses for HIV, HCV and HBV by comparing donor screening strategies such as antibody-only screening, antibody and antigen screening, and nucleic acid amplification testing (in pools of 2 to 24 donations or using a single donation format). Results are expressed in (1) terms of the number infections interdicted through different screening strategies, and (2) as cost per disability adjusted life year averted (\$Int/DALY) of each strategy. The model requires input of country-specific data on the incidence and prevalence of each infection, percentage of first time and repeat donors, cost of different testing methods, average age of transfusion recipients, transfusion survival and related parameters. This type of information is often incomplete or missing for a given setting. In the event country-specific data are not available, data from one of the seven countries listed above that has a similar level of human development can be included in an analysis for another country.

Summary

Cost utility analyses provide important information on the relative value of different blood safety interventions. This type of information to support decision making is in increasing demand, especially in developing and transitional countries. Yet, local capacity to develop such models may not be available. The CUA subgroup of the WP on TTID bridges this gap in risk assessment and economic evaluation of blood safety interventions for the international community of transfusion medicine decision makers by using two approaches. First we lead health economic evaluations using the web-based tools that have been developed. Second we provide support and expertise to groups or individuals who wish to conduct their own analyses using the web-based tools.

“The group has developed a user-friendly, online tool that enables health authorities or researchers across the globe to conduct country-specific analyses using a common set of underlying models and assumptions.”

assessment and economic evaluation are pivotal tools used to inform decision makers about how to optimally allocate resources. These tools, however, must be tailored to specific regions or countries as epidemiological, economic and logistical factors vary. Comparison of results from studies examining different strategies or from different geographical regions is hampered by inconsistent methods such as divergent interpretations of the progression and the cost burden of an infection.



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You can count on us to shed even more light in the months to come.

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From the President



Silvano Wendel

This is my first letter as the new ISBT President. I am grateful to Professor Seifried and his collaborators for leading us in a brilliant, professional and unforgettable way in the previous Board and for the wonderful Congress in Berlin.

ISBT is reaching maturity and is ready to enter a new era. A new logo and visual identity was launched in Berlin the Board is rejuvenated, the CEO is working in full capacity and we are all looking to the future, bright and promising. However, we can only manage this if we respect and understand our past. ISBT is a Society with glories, stories and history. But it seems that part of our past is partially forgotten, hence our glory and glamour too. No leadership will neither endure nor shine forever. We have to look to the future and pave the way for leaders yet to come, but also convey to them that our past and pioneers have to be kept alive. In a correspondence between Claudine Hossenlop and Past President Prof BPL Moore, she quoted Aristotle: *If you would understand anything, observe its beginning and its development.* Claudine, you are right, and historical facts from ISBT will be pretty soon organized and made public permanently.

Being a global or multicultural Society demands understanding of different cultures, habits and attitudes. This is not an easy achievement, but I understand that ISBT must embrace new members and their cultures in an open and receptive way. This concept does not mean a rupture with the past, but an accommodation and adaptation to this ever changing world.

In order to be great, we must think great and act great. And a great Society can only endeavor its greatness when supported by a professional team at the Central Office. Steps have already been taken, but more is needed. Partnerships must be maintained and increased; we must work closer with World Health Organisation, The International Federation of Blood Donor Organizations, International Federation of Red Cross and Red Crescent, Council of Europe, AABB, World Apheresis Association, Network for Advancement of Transfusion Alternatives, German Society for Transfusion Medicine and Immunohaematology, British Blood Transfusion Society and several other national or international related societies. The world can accommodate all of us. There's no need to waste our scarce resources, both human and economical; we can certainly improve blood safety by sharing what we have.

Although we have members from 95 countries, I still consider our membership as a modest one (approximately 2000 members). I think we must double our membership in 4 years. For that, it is important to preserve and respect our old and new members, strengthen membership and activities in new frontiers, particularly in Latin America, Eastern Europe, Africa, Asia and Western Pacific. This will bring new blood to all of us. However, it is important to emphasize that Western Europe and North America play an important role in ISBT and that has to be respected and honored.

Although we are financially healthy and stable, we must grow even further, open new opportunities and prosper. Our funds have to render two main things: security and support to use our skills in developing global blood safety by sponsoring meetings both educational and scientific, promoting safe blood recruitment and donor programs. It is better to use our resources targeted towards what we do best: blood safety, membership activities and development of transfusion medicine We already do that, via publications, congresses and the Harold Gunson fellowship, but there's more: ISBT Academy has interesting plans; a successful pilot meeting in Colombia in early June and the Berlin activities showed that there is always room for education; Anne Husebekk and Judith Chapman will launch a new plan for 2010-11; substantial funds were already allocated by the Board. The ISBT Foundation will renew part of the Board membership pretty soon aiming to obtain funds fully designated to support new projects in the near future.

It is important to assure that all Board members participate actively in several tasks through meetings (face-to-face or conference calls). I welcome the new Board members, and ask you to be participative and engaged in our mission. We are a great family, and like any family, problems and differences appear, but in the end, we have to forgive everything whenever we are together working for ISBT. I will finish here quoting Saint Augustine of Canterbury, who in the year 601 said "if you will not have peace from your friends, you shall have war from your foes." Let's all live in peace, forget past problems and move forward to the promising future.

Silvano Wendel
ISBT President

Successful International Congress of the ISBT in Berlin

The XXXIst International Congress of the ISBT took place in the International Congress Centre (ICC) in Berlin in joint cooperation with the 43rd Congress of the German Society of Transfusion Medicine and Immunohematology (DGTI) from June 26 to July 1, 2010.



Left Dr P Roesler, Opening Ceremony
Above Dr P Roesler participates in an interesting discussion on the blood supply
Right Prof Seifried speaks at the Opening Ceremony



MORE THAN 5,100 physicians, scientists and delegates from industry coming from about 120 different countries actively attended the Berlin congress. Congress President and President of ISBT Professor Erhard Seifried was happy to welcome all attendees in Germany for the second time since ISBT was founded in 1935.

Never before has an ISBT congress attracted so many delegates and companies. More than 1,400 scientific contributions, abstracts and papers were submitted for the congress. Out of these scientific contributions, 120 oral abstract presentations and more than 1,200 poster presentations were given during the International Congress. In addition, the scientific committee was able to attract 140 internationally renowned scientists and physicians, who gave an up-to-date overview in introductory lectures during more than 100 scientific sessions chaired by 250 experienced international experts in the field.

The whole spectrum of transfusion medicine and hemotherapy including neighbouring clinical as well as scientific fields was covered and discussed by scientific contributions of the highest level. Education in our field was the mission of the stream "ISBT Academy" taking part through out the

whole congress. These well attended scientific sessions showed, that ISBT is following the right track by offering high level education in transfusion medicine and that this is an offer well taken!

Translational medicine was presented in the stream "From the Lab to the Patient," while the additional streams "Quality Management," "Cellular Therapy" and "Blood Safety" covered further important current main topics. All streams were well attended and offered the highest levels of information as well as options for discussion. Streams were offered in parallel throughout the whole congress and thereby gave attendees the opportunity to get a full update in this field.

A big number of ISBT Working Parties, scientific project groups co-funded by the European community and the Koch-Metschnikov forum, a Russian-German scientific cooperation, used this platform of the International ISBT Congress to organise excellent meetings during the pre-congress programme. The national scientific cooperation partner of the ISBT Congress, the German DGTI, held a well attended educational day for transfusion officers and physicians, where aspects of modern hemotherapy were presented by national experts.

Young scientists got an excellent platform to present their scientific work in the field. Two excellently attended poster walks on Monday and Tuesday evening with 250 experienced international senior scientists serving as poster walk moderators gave an optimal option to present scientific results. Both poster walks were followed by poster parties with drinks and a light buffet dinner. Out of the 1,200 poster presentations, the international poster award committee chose 12 poster award winners, who received their high value prizes during the congress banquet on Wednesday evening in the wonderful surroundings of the Kronprinzessin-Palais Unter den Linden.

Ninety-two pharmaceutical companies and manufacturers of medical devices or laboratory machinery organised 17 well attended satellite symposia during the congress. The industrial exhibition in addition comprised more than 2,600 square meters, where more than 1,500 representatives from the companies answered the questions of the congress attendees.

German Health Minister Dr. Philipp Roesler, M.D., was deeply impressed by the well attended International Congress and the depth and breadth of the Berlin scientific programme. During his lecture at the opening ceremony

and in discussion with the Board of Directors of ISBT and DGTI, Dr. Roesler was very interested in the future of a safe and sustained blood component supply as well as high quality cellular therapeutics. Professor Seifried and his scientific and organisation team were able to organise a perfect congress on highest possible scientific level. In addition, social events like the speakers dinner on the roof of the German parliament, the Reichstag, will most probably become a permanent memory for all, who attended this event. The physically active attendees were offered an ISBT DGTI 5k Fun Run on Wednesday morning. 73 finishers enjoyed an excellent breakfast after the run through the Grunewald in Berlin. The congress banquet on Wednesday evening in the Kronprinzessin-Palais Unter den Linden in the centre of Berlin was another social highlight of the congress. Most attendees didn't want to leave the gala before 2 am in the morning.

With this successful congress, Professor Seifried's ISBT Presidency ended during the ISBT General Assembly. The newly elected ISBT Board of Directors also started their work at the Berlin congress. The ISBT congress team of the Berlin congress wishes the whole ISBT Board of Directors all the very best for their future work.

Poster Awards Comments

From the XXXIst International Congress of the ISBT

“During our five day of visit in Berlin, as participants of the XXXIst Congress of ISBT, we did experience very positive feelings and emotions. The most important thing from our perspective was the possibility to exchange our experiences in the field of science with many people that we had already known before, either from our previous partnership or from various scientific publications. The possibility of expanding our knowledge was also very important. Not to mention the opportunity of seeing the issues of transfusiology from a completely different perspective, which surpasses our field of knowledge.

We are very satisfied that our poster (Vox Sanguinis 2010, 99, suppl. 1: P-0995) “Bioactive lipids: is lysophosphatidylcholine generated during storage of blood components?” was selected by the poster award committee as one of the twelve best posters. This problem which we presented in the poster seems extremely important in the light of the fact, that transfusion of aged blood components has been associated with the onset of TRALI (Transfusion Related Acute Lung Injury). TRALI may significantly contribute to morbidity and mortality in the critically ill and injured patient population. We see this award as appreciation of our effort and engagement as well as encouragement to further studies.”
Gabriela Smolenska-Sym, Krystyna Maslanka, Warsaw, Poland

“It was a great experience for me to be in the International Congress of the ISBT held at Berlin and it meant to me a lot. I was really speechless at the time of leaving. It was the first International Congress. I attended. I came across different people and various scientific ideas. The concept of DOMAINE: European donor management was one which I liked most. To me it was like all the scientific ideas pooling together to make XXXIst International Congress of the ISBT a big success. It covered the large number of topics of blood transfusion and served as a common platform for discussion. The credit of success goes to the dignitaries Prof. Dr. Seifried, Professor Eckstein, and others. Winning the ISBT and DGTI poster award is a great honour to me. The congress and winning poster award has not only given new dimensions to my scientific research work but has also given a shape to my personality. I was never given so much importance before.

It is always said that hard work pays and yes that was the time!! I am really thankful to the scientific committee for appreciating my hard work. As soon as my name was in the list of winners I recollected the memories of hard work which has led to it and I informed to my parents who have always supported me during my hardship. It was a moment of pride to my family and my department. This is the achievement which I will never forget. It was a great congress. All I can say is “Thanks.” **Vivek Gupta, India**

“This was the first foreign congress that I attended since I started my PhD project. I was amazed by the grandness of the congress. I enjoyed the interesting presentations given by experts of the field. Next to this it was nice to interact with so many enthusiastic researchers.

On Monday I had to defend my poster and at that same time Holland was playing the quarter final of the World Cup. I just saw the second goal of Holland before I raced to my poster. I had some nice discussions about my poster with multiple persons. However the persons I thought had to mark my poster where there at 6 o'clock sharp and I was a few minutes late because I saw that goal of Holland. Therefore I thought I had no chance to win the prize. So on Wednesday when I saw my name on the screen as one of the poster award winners I was really amazed. The Award Ceremony at the banquet was really nice and I couldn't stop smiling because such a young football loving researcher had won the prize.” **Lonneke Wigman, The Netherlands**

“Berlin 2010, was the first ISBT conference I had attended and it has been a wonderful experience. Very well organized meeting with lots of exciting presentations and discussions. I am already looking forward to the next meeting.

Winning one of the poster awards came as a pleasant surprise to me. I really wasn't expecting it. In this era of molecular and genetic science, I am impressed that this basic epidemiological study was recognized and rewarded. This serves as a challenge to researchers in developing countries to focus on relevant and important issues pertaining to one's area. I wish to thank the ISBT executives and conference organizing committee for recognizing the work.”
Alex Owusu-Ofori, Ghana

Read more comments on www.isbtweb.org



Geoff Daniels

This is my first report for Transfusion Today. I took over as Secretary General at the Berlin Congress in June and I am now trying to learn the job as quickly as possible. I would like to thank the ISBT members for electing me to this position; I feel extremely honoured to be following in the footsteps of Harold Gunson and Paul Strengers, the previous two Secretaries General.

Many ISBT members will not remember a time before Paul Strengers was ISBT Secretary General, as Paul has occupied the position for the last 10 years. During his era, whilst working with a string of Presidents and other Executive and Board members, he helped to create the vibrant, professional, and growing organisation that the ISBT is today. This includes the establishment of the office in Amsterdam and an Executive Director to run the Society. I usually try to avoid clichés, but I have to say that Paul will be a hard act to follow. Thanks Paul for all your work for the ISBT.

I think that everyone who was fortunate enough to attend the Berlin Congress would agree that it was an outstanding event. It must rank as one of the best ISBT conferences; it was certainly the largest, with a total of 5,100 delegates. The scientific programme was of a very high standard, including over 1000 poster presentations. In addition, the social programme provided plenty of entertainment, especially the Congress Banquet in the Kronprinzessin-Palais Unter den Linden. And who would have expected the opening ceremony to finish with the cancan? The Folies Bergere comes to Berlin! Many congratulations and thanks are due to Erhard Seifried and his team. Erhard has not only been ISBT President for the last two years, but was also Congress President.

Berlin is a city with a fascinating history, particularly throughout the twentieth century. Now it is a welcoming, friendly, calm, and somewhat laid-back capital city, and

an ideal venue for an international conference. On top of all that, the weather was warm and mostly sunny all week.

ISBT now looks forward to two regional congresses in 2011: Lisbon, Portugal in June and Taipei, Taiwan in November. The next International Congress will be in Mexico in 2012 and the successful bids for the regional congresses in 2013 were Amsterdam in the Netherlands and Kuala Lumpur in Malaysia.

I plan to use this column in future editions of Transfusion Today to report on topics being discussed by the ISBT Board of Directors. For this issue I don't have much to say as I have only just taken over as Secretary General and only attended one brief meeting of the Board, which mostly involved updating new Board members on current matters. I hope to be more informative in future issues of Transfusion Today.

The ISBT is on a high at the moment. We have just finished a great Congress, we are in good shape financially, the academy is underway with a very successful contribution to the Congreso Colombiano in Bogotá, Colombia and another event planned in September in Riga, Latvia. I am very pleased to have been given the opportunity to make a contribution to the success of this ambitious and expanding society. We now have a new President, President-Elect, Secretary General and Vice President as well as 5 other new members of the Board. I am confident that this new team will carry on where the old team left off in driving the Society towards achieving its objectives and setting new challenges.

Geoff Daniels
ISBT Secretary General



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is doing better what is already being done.

—Peter Drucker

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From ISBT Central Office

Welcome to our new members

May - August 2010

Africa

- **ANGOLA:** Luisa Cambela, Eunice Manico
- **KENYA:** Peter Mwamba
- **NIGERIA:** Shakiru Tunde Abdul
- **SENEGAL:** Saliou Diop

Americas

- **BRAZIL:** Kennia Maria Duarte, Sandra Kayano, Esther Lopes, Mariza Saito
- **CANADA:** Adele Hansen, Craig Jenkins
- **CHILE:** Maria Cristina Martinez Valenzuela, Qing Wei
- **MEXICO:** Felipe Herrera Gomez, Araceli Malagon Martinez, Noemi Natyeli Morales Basurto, M. Rivera, Myriam Villanueva Méndez
- **USA:** K. Augustin, Stephen Bruttig, Richard Gammon, M. Giora, Ghazala Hashmi, Tyler Hutchinson, Donna Rossi, Beth Shaz

Eastern Mediterranean

- **BAHRAIN:** Mohamed Al sammak
- **EGYPT:** Sanaa Abdelshafy, Somaya Elgawhary, Tarek Hamza, Rasha Hussien, Roudina Magdy, Hebatalla Sedky, Shereen Shabayek, Sally Soliman
- **IRAN:** Yaser Seyed Gogani
- **JORDAN:** Ahenis Al-Jabori
- **LEBANON:** Myrna Germanos, Berthe Hachem Chalhoub, Gilbert Karayakoupoglou
- **MOROCCO:** Raouf Alami, Khadija Hajjout, Khadija Lahjouji
- **PAKISTAN:** Irum Gilani, Saleem Ahmad Khan
- **SAUDI ARABIA:** Fahad Al Modaihsh, Hatim Aljarrar, Mahasin Almusa, Tariq Hakeem, Abdirahman Hussein, Hussain Karawagh, T. Mustafa, E. Qadan
- **UNITED ARAB EMIRATES:** Sameer Ahmed, Sherief Islam
- **YEMEN:** Samir Alshargapi, Mustafa Taher Ahmad

Europe

- **AUSTRIA:** Anja Peterbauer-Scherb, Elisabeth Pittermann, Helga Voggeneder
- **BELARUS:** Siarhei Liashchuk
- **BELGIUM:** Marc Slaedts
- **BOSNIA AND HERZEGOVINA:** S. Gegic, B. Jukic, A. Macura, S. Milic, D. Udovovic
- **BULGARIA:** Vania Jordanova
- **CROATIA:** Maja Tomicic

- **DENMARK:** Annie Rigmor Nielsen, Mai-Britt Seremet
- **FRANCE:** Bernadette Boval, Gerald Daurat, Anne Doly, Christof Vinzia
- **GERMANY:** Siegfried Goerg, John Kerckhoffs, Cornelius Knabbe, M. Lauterbach, Pieter Poel, Stephan Rauchensteiner, Michael Wichmann, Jeannot Zimmer
- **GIBRALTAR:** Audrey Baglietto, Ernest Gomez, Sarah Parody, Norbert Sene
- **GREECE:** Natassa Chaikali, Spyridon Koumarios, Aikaterini Pantelaki, Aikaterini Pyrgioti, Loukas Synodinos, Maria Vasiloudi
- **IRELAND:** Doris Campbell, Damien Creighton, Marina Cronin, Harry Croxon, Joe Donnellan, Nuala Haughian, Bronagh Honag, Fiona Kearney, Mark Lambert, Mary McArdle, Easentheren Naidoo, Bernie Quirke, Estele Verburgh

- **ISRAEL:** Naomi Rahimi-Levene
- **KAZAKHSTAN:** Zhandos Burkitbaev, Madina Ospanova
- **NETHERLANDS:** E. Donk, Harald Hilbelink, Boris Hogema, Welling Oei
- **NORWAY:** Mona Brattlien, Brit Fossvold
- **PORTUGAL:** Anabela Barradas Lichtner, Mercedes Corral, Marlene Cruz, Marcos Fazenda, Isabel Grachinha, Ana Leite, Lilia Leonardo, Nelly Martinez, Carmen Paniagua, Blanco Pinedo, Consuelo Ramirez, Isabel San Juan, Concepcion Ramora
- **ROMANIA:** Aurel Rosin
- **RUSSIA:** S. Madzaev, Sergey Suchkov, Pavel Trakhtman, Aleksey Zamuriev
- **SERBIA:** M. Antic, Zorica Brajovic Vucicevic, M. Cankovic Kadjevic, Snezana Draskovic, S. Drndarski, F. Grkovic, Milica Igic, Lj. Ilincic Franciskovic, Milica Jovicic, Zvezdana Lojpur, B. Mihic Tomic, M. Mikajlovic, B. Prsic-Knezevic, B. Stankovic, Natasa Vavic, D. Velkovic
- **SLOVENIA:** Marjeta Macek Kvanka
- **SPAIN:** Amador Martin-Recio
- **SWEDEN:** Staffan Birnbaum
- **SWITZERLAND:** Noryati Abu Amin, Christopher Bird Georg Schorer, Tianshu Tang
- **TURKEY:** Fahri Yuce Ayan, Levent De Neve, Guclu De Meyer Sibel Eldemir
- **UKRAINE:** Sergiy Fedyakov, Vadym

- **lavorskyi, Natalia Kovalenko, Elena Malygon, Mykola Pogorilyy**
- **UK:** Beth Ann Brick, Laura Cox, Dietmar Hoefer, Judy Langham, Linda Lodge, David Roberts, Samantha Sadu, Mike Wiltshire

South East Asia

- **SRI LANKA:** Kumudini Gonsalkorale
- **THAILAND:** Sompong Jinathongthai, Aroonsri Kliangsaad

Western Pacific

- **AUSTRALIA:** Jacqui Caulfield, Catherine Hyland, David Irving, Lynn Nelson, Geoff Simon, Amanda Zatta
- **CHINA:** Xiaojuan Cao, Zhijiu Chen, ZhengBin Chen, Qing Chen, Xiao Fei Chen, Yaoxin Chi, HaiJie Deng, Fang an Du, HengYing Duan, Rui Feng, Qiang Fu, Jianping Gu, YiWen Hao, Wei Hu, Xia Huang, Feng Jiang, Zhiqiang Li, YongMing Li, Zhong Li, Wei Li, Yong Li, Yintai Li, HongWen Liao, Ronglu Lin, Tiecheng Liu, Jingyu Liu, Jun Liu, Huilan Liu, Jie Liu, Ti Liu, YaXin Liu, Changchun Lu, Huaxin Lu, Qiujiang Luo, Wei Mao, Bo Meng, DaWei Ni, Shufen Pang, Hua Peng, Yuxiao Qin, WeiDong Ran, Qin Shu, Zhongshan Song, Qi Feng Sun, Gui Jie Sun, Wei Tan, Li Ian Tang, Liping Tang, WeiGuo Tang, Qiu Shi Wang, Xigang Wang, TingTing Wang, XiaoPing Wang, ZhenXian Wang, YueHua Wang, JuanJuan Wang, Jun Wang, Peng Wang, Menghai Wang, Yaqiang Wang, Qing Wei, ZhiPing Wen, GuoXin Wen, Wei Wu, DaiQuan Xia, LiQun Xie, Bo Xie, Hilson Xu, Yuxia Yan, ChunQing Yang, DongYan Yang, Yaoguang Zhang, Yu Zhang, Li Zhang, Jiangqiang Zhang, Guoqing Zhao, Hongyu Zhao, Shiyong Zhao, Xiaogang Zhao, Wei Zheng, Zhihong Zheng, Yu Zhou, Yonggang Zhou, Mingyan Zhu, DeHua Zhu, ZhengRong Zuo
- **JAPAN:** Mutsuhiko Minami, Kazunori Nakajima, Ori Ozawa, Hirokazu Tsuno
- **REPUBLIC OF KOREA:** Ok Ju Jung, Taegy Kim, Kap No Lee, Sungchan Park
- **MALAYSIA:** Hilmy Yeop Ahmad
- **SINGAPORE:** Amber Loh



Janet Sampson, UK, Working Party (WP) on IT EC Member, WPIT Validation Task Force Chairperson

Bogotá, Columbia

ISBT Academy Workshop



ISBT Academy Workshop of the ISBT, on IT and Automation during the VI Congress of Blood Banks and Transfusion Medicine, Colombia held at the Hotel Tequendama, Bogotá from June 3rd to 6th, 2010.

Earlier this year the ISBT was invited by the Colombian Society of Blood Banks and Transfusion Medicine (ACOBASMET) to present a workshop, dedicated to IT and Automation within blood banks and transfusion medicine, during its national congress. The invitation was timely as one of the objectives in the ISBT's strategic plan is to strengthen the ISBT Academy. ISBT is, therefore, currently working on a plan to organise a number of Academy workshops in regions of the world where ISBT does not hold a regional, or international, congress. These workshops will either be held in association with national transfusion society meetings, or, as a separate programme.

The participants during the "Workshop on the ISBT, IT and Automation" held at Bogotá were ISBT President, Dr Silvano Wendel (Brazil), who was accompanied by three members of the ISBT Working Party on Information Technology (WPIT); Pat Distler (USA), Dr Charles Munk (Switzerland), and Janet Sampson (UK).

The format of the workshop, which was chaired by the ACOBASMET congress president, Marcela García, was a series of presentations and questions and answers sessions. The program included: An Overview of the Organisation and Activities of ISBT; Relevance and Use of the ISBT Code of Ethics; How Does Technology Fit in Blood Services?; Benefits and Responsibilities of the Information Systems; Life Cycle of the Automation in the Blood Bank; Consideration in the Selection of a System; and The Validation Process.

There was an enthusiastic and friendly audience for the workshop with approximately 60 people from countries across South America attending the sessions throughout the day. As Spanish is the first language spoken in Colombia, the proceedings were simultaneously translated and several Red Cross staff, who were recruiting new donors during the congress, provided us with translation help at other times during our stay. The workshop audience, however, appreciated that Silvano delivered his presentations in Spanish, and that Pat presented bilingual slides. The questions and answers sessions resulted in some lively, interactive, discussions as the participants posed some very challenging and thoughtful questions, particularly regarding validation and the responsibilities for blood establishments when working with suppliers. More than 20 copies of the recently published ISBT Guidelines for Validation of Automated Systems in Blood Establishments were distributed. The need for Spanish translations of ISBT guidelines was raised and this requirement has subsequently been discussed at the WPIT meetings held during the Berlin Congress. The workshop had to come to a prompt close as we had kindly been invited to visit the Hemocentro Distrital blood centre in Bogotá by Dr Bernardo Camacho, Director, so unfortunately we were unable to respond to all the questions from people who approached us at the end. Overall, the workshop was very enjoyable; feedback during the congress was that it was a useful learning experience for everyone with new networks having been established.

Since then, ACOBASMET has expressed their deep gratitude to ISBT for their participation and reaffirmed the importance of the IT workshop. The analysis of the congress surveys provides the following results: the Congress scientific program was scored as 54% excellent and 44% good; the knowledge of speakers was expressed as 71% excellent and 29% good; the relevance and usefulness of the topics was declared as 61% excellent and 38% good.

ISBT and the presenters are very grateful to Marcela García of ACOBASMET, and our other hosts for their generous hospitality and kindness during our stay in Bogotá. Not only has the profile of ISBT been raised in Colombia and other countries throughout the South American region, but, importantly, ACOBASMET believes that there is a lot that can be achieved through collaborating with ISBT to raise standards of IT in blood transfusion.

Finally, the presenters have given permission for their presentations to appear on the ACOBASMET website (www.acobasmet.org).



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WBDD concert, Russia

Transfusion Medicine in Eastern Europe 2010

Life of our transfusion people is heated in 2010. The Russian Prime Minister Vladimir Putin signed a first Technical Regulation in healthcare. This regulation is about blood safety. According to this from 1st of August we will transfuse only retested or pathogen-inactivated plasma. More than 70 machines for pathogen inactivation are already established. All blood components have to be warmed before transfusion.

The Federal budget for the blood service in 2010 is 6 472 737,8 thousands roubles (at 24th of July 1 euro = 39,1253 roubles). Regional blood services are also funded by regional budgets. In the near future the first modern plasma fractionation plant in Kirov will be constructed. The planned annual output of the plant is 600,000 litres of plasma.

More than 5000 transfusionists are in Russia and there are many more in former USSR Russian-speaking countries. During the Berlin congress we remembered the iron curtain between West and East. Due to the curtain our common problem is a lack of knowledge of foreign languages. A lot of transfusion people from Russian-speaking countries usually come to ISBT (and AABB) congresses but visit only an exhibition and do sightseeing.

For the first time in ISBT congresses history (except Moscow in 1969) a symposium with simultaneous translation in Russian was arranged by Koch-Mechnikoff Forum and Erhard Seifried and colleagues. More than 200 participants took part at the symposium.

In Russia we have National Blood Donor Day on 20th of April. At that day in 1832 in Saint-Petersburg an obstetrician Andrey Wolf successfully transfused blood with James Blundell technology. In 2010 on this day the resume of the annual VII National Award for The Best Donor of Russia was announced. Awards were presented to people on the eve of the World Blood Donor Day, June 14, 2010.

In spring we had national blood transfusion conferences in Grodno (Belarus) and Lugansk (Ukraine). In autumn the same conferences will be organized in Yerevan (Armenia) and Khujand (Tajikistan). Finally the Eastern European blood transfusion meeting will take place in Moscow, in Pirogov National Medical Surgical Center on December 15th-17th, 2010.

To know more please visit www.transfusion.ru



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United Arab Emirates Celebrate World Blood Donor Day 2010

World Blood Donor Day, 14th June has been chosen as the day to recognize the millions of people who save lives and improve the health of others by donating blood.

The 2010 global campaign focused on young donors, with the slogan "New blood for The World". Recruiting and retaining young blood donors will ensure the long term safety and sufficiency of a country's blood supply and promotes safe and healthy life style.

In United Arab Emirates (UAE) the Sharjah Blood Transfusion & Research Center in Ministry of Health promoted this event and performed the following activities.

- 1 The WBDD was promoted within all local blood donation centers, letting voluntary blood donors know about this day and thanking them for the contribution they make to UAE. blood transfusion services. The donation centers were decorated with colored balloons and paper decoration carrying the slogan of this year and word of thanks to the blood donors for their generous contribution. Snakes were prepared for all participants in this event and group photos has been taken.
- 2 WBDD wall mounted poster, colored, in Arabic and in English languages has been designed and distributed to all Emirates news papers that are issued in both languages (Arabic & English), to all blood donation centers, primary health care clinics preventive medicine clinics, governmental and private hospitals and governmental establishments.
- 3 10,000 SMS messages, in Arabic and in English, caring the slogan of this year has been sent to mobile phones of people in general.

Dr May Raouf, Medical Director, Sharjah Blood Transfusion and Research Centre



Blood donor campaign Sharjah during WBDD 2010

- 4 The National Media and Communication Council, UAE: was contacted (TV, radio, news papers, journals) to cover the activities. The news papers published the poster and talked about the event and the planned activities and TV shots with keynote speakers with short films about the blood donation were played live on different channels.
- 5 Educational & publicity material for the event were prepared which included: wall mounted posters in Arabic & English, pins, pens, mugs, T-shirts, balloons and caps. All related material to carry the slogan for this year.

WBDD publicity material was distributed to governmental and private institutes schools, university, social association, cultural clubs & companies.
- 6 The Shopping malls participated in the event by placing the rollup stands and arranging mobile blood donation campaigns and distributed flyers as educational material.
- 7 The Sharjah Blood Transfusion & Research center with hospitals based blood donation centers co organized many active and successful mobile blood donation drives, where the employees and visitors at different governmental and private establishment are encouraged to donate blood. This will increase public awareness about the importance of voluntary, regular blood donation.
- 8 Blood Donors appreciation parties were organized in different blood donation centers to appreciate the active participation of voluntary blood donors whom have donated more than 30 times and an appreciation certificate being issued to the blood donors.

The UAE is proud to celebrate in this event every year taking in consideration that UAE has hosted World Blood Donor Day year 2008 as the first Arabic country and fifth world wide; expressing the commitment of our government to the importance of voluntary blood donation.



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Dr Vahid Dastjerdi, Iranian Health Minister at WBDD, Iran

2010 World Blood Donor Day in Iran

The Iranian Blood Transfusion Organization (IBTO) commemorated 2010 World Blood Donor Day in a big ceremony held at the conference hall of the Iranian Blood Research and Fractionation Company with over 250 guests.

Participants

The Iranian Minister of Health, Iranian Deputy President in Science and Technology; WHO representative in Iran; Members of Parliament; Deputies of Health Ministry; movie stars; representatives from Economic Cooperation Organization; blood donors and IBTO staff participated in the ceremony.

IBTO Achievements

In his welcome speech, Dr. Abolghasemi, IBTO Managing Director addressed the achievements of IBTO in recent years.

“Increasing the rate of regular donation up to 43% in 2009, automatic donor record, plasma fractionation in cooperation with European countries, meeting all needs for IVIG and factor 9 in 2010, sufficient blood inventory and full preparedness against disasters were some highlights of progressing areas in IBTO,” he said.

“The culture of making vow to donate blood on special religious days and continuous penchant for donating blood in small cities are some valuable opportunities for IBTO to encourage blood donors to donate regularly,” he added.

At the end he expressed his appreciation to blood donors whose sacrificing resulted in all of these achievements.

IBTO is a role model in the region

Her Excellency Dr. Vahid Dastjerdi, Iranian Health Minister, while appreciating IBTO staff for their great achievements in recent years emphasized the importance of blood in the health system.

Her Excellency Dr. Nasrin Soltankhah, Iranian Deputy President in Scientific and Technology Affairs, expressed the support of government to establish national cord blood bank and the importance of cellular therapy in new era of medicine.

The role of youth in blood supply

Dr. Manenti, WHO representative in Iran delivered his speech emphasizing the significant role of young blood donors in supply of safe and adequate blood and the new initiatives such as Young Ambassadors programmes and international youth clubs to recruit them.

He mentioned that recruiting and retaining young donors not only improve long-term blood safety but also promote safe and healthy lifestyle.

Read more on the ISBT website:
www.isbtweb.org/knowledge-base/articles/



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Celebration of the World Blood Donor Day in the Americas

Mexico

In June 1981, the government of Mexico, through the Ministry of Health, created the National Center for Blood Transfusion to support the needs of the blood supply and blood products in the country. This was justified on the necessity for distribution and proper use of blood and blood components and very important in order to control the epidemic of human immunodeficiency virus .

Currently in Mexico, with a population of 103 million inhabitants , 5.330 blood units are donated daily, unfortunately as in many developing countries, for the supply and self-sufficiency in the country, donations still depend on relatives or friends. Only 3.1% of blood components obtained comes from volunteer donors, the rest is obtained through the replacement mechanism ; the National Health Program poses the increase to 50% in voluntary blood donation as an objective for the year 2012 . Following the program of social cohesion the National Center of Blood Transfusion performed collections of blood in universities, embassies, companies and churches, among others.

To promote voluntary blood donation in Mexico, since August 25, 1988, one year after the sale of blood was prohibited in the country, the celebration of the National Blood Donor Day began¹, honoring the altruistic attitude of those who volunteered donate blood. Ceremonies were conducted all over the country, being chaired by officials of the Ministry

of Health on the 32 State Centers of Blood Transfusion. The celebration of the National Blood Donor Day was replaced by the celebration of World Blood Donor Day, from 2005, when June 14 was adopted as the official date to honor volunteer donors.

Through the National Center and State Centers of Blood Transfusion volunteer donors were honored last June 14, 2010. This year the World Blood Donor Day was focused on young people with the slogan "New blood for the world". In Mexico the need of blood is increasing and the contribution of young people is very important, not only in the process of donating blood but also as recruiters of other young people to become donors; the media campaign aimed young audiences was based on research performed by the National Center of Blood Transfusion, through surveys that determined that voluntary donors are young (19-28 years), single and university students. The slogan "Our volunteer donors is a star" intend to promote blood donation and recognizes publicly volunteer donors.

The celebration ceremony of the World Blood Donor Day that was conducted in the National Center for Blood Transfusion and included the participation of various recipients and donors who transmitted their feelings of giving and receiving blood as a gift of life. The event also had the representation in Mexico of the Pan American Health Organization.

Nicaragua

Every June 14th our countries celebrate World Blood Donor Day. Since 2008, PAHO has had the initiative of selecting one country in the Region for the celebration of this important day, based on its achievements related to the increase of voluntary blood donation.

In 2008 the city chosen as the venue was Bogota, Colombia. In 2009, the selected city was Asuncion, Paraguay and in 2010 it was Managua, Nicaragua. The reason for this choice was that this Central American country achieved the goal of 100% voluntary altruistic donation, acquiring the commitment to increase consecutive donation.

With the motto of "New blood for the world," the celebration was focused on young people. There were two days of planned activities. On June 13th, at the Nicaraguan Institute of the Youth (INJ), after the words of welcome from the delegate of the Nicaraguan Red Cross and the representative of the Department of Health, the celebration started with activities such as sports competitions, folkloric dances and drawing contests allusive to blood donation.

On June 14th, the activities began with the Run for Voluntary Donation through part of the city. Afterward, the Main Event was carried out at the INJ. The event was presided by the representative of the INJ, Dr Bosco Castillo; the president of the Nicaraguan Red Cross, Ing. Clemente Balmaceda; the representative of PAHO/OMS, Dr. Jorge Luis Properi; the representative of PAHO Nicaragua, Ing. Eduardo Ortiz; the representative of Young Donors of Nicaragua, Marbely Marín; the representative of the Luxemburgo Corporation, Mr. René Lauer; the representative of the Department of Health Dr. Alcides González; the representative of PAHO Washington, Dr. José R Cruz and the representative of the International Society of Blood Transfusion, Dr. Graciela León.

Among the attending public were people involved in blood donation, representatives of different organizations, blood banks, donor associations and different organized juvenile groups.

During the event, the presiding table gave recognition to individuals with a long history of voluntary donation and to organizations that have supported voluntary donation; prizes were awarded to the winning teams of the sports competitions and of the drawing contest. In addition, promotional videos from internationally-recognized artists were shown to the attendees. The event was entertained by dances and songs of the Region.

The event concluded with the closing words from the representative of the Department of Health, Dr. Alcides González, with refreshments being offered to the attendees afterward. It must be emphasized that there was good coverage from the mass media of both the main event and the various activities. The representatives of PAHO and the ISBT were interviewed by different radio stations and printed media.

Particularly, I must highlight that it is extremely positive to carry out these Regional celebrations. The reasons are many: through these events those professionals who work to promote voluntary donation feel supported; the public is stimulated to continue donating voluntarily through the wide diffusion of information by the mass media, as well as through the decorations and recognitions; all of the hard work that goes into promoting donation gains international exposure; and lastly, because it reinforces the commitment acquired by the sanitary local authorities to the blood bank and to the country.

SOUTHERN

Concepción, Chile Earthquake 2010

The role of the community and national networks
in ensuring safe blood after natural disasters



Dr Martinez visiting a regional hospital where children needed to be transfused

SOUTHERN

AMERICAS

On February 27th 2010, a devastating earthquake struck Chile. The earthquake 8.8 Richter also triggered a Tsunami, which caused severe damage along the Chilean coast. The chaos after this natural disaster was very dramatic considering that all basic services were damaged and the authorities needed several weeks to determine and evaluate the damages.

The day after the earthquake, Concepción was being plundered by hundreds of people who were completely out of order and acting in a dangerous way. Because of this terrible situation, the city ran out of medicine, food, fuel and cash. Highways, roads and bridges had important damage. Some of them were completely destroyed, until now there is a serious transport problem.

Twenty-four hours after the disaster, official information estimated that more than 300 people had lost their lives under debris and an unknown number of people were injured necessitating access to safe blood transfusion. Two days after the disaster the number of dead people increased to 800. There are still many people missing. Hundreds of injured were delivered to the closest hospitals, some of which were seriously damaged and with very few professionals available. Most hospitals of the city were in absolute chaos. All emergency institutions had to work with fuel-powered generators.

At the Blood Center, the situation wasn't very different; Electricity and fuel were not available for

many days. Concepción Blood Center had to make a great effort to accomplish its demand and production without ceasing its operation.

After the disaster, leaders of the institution evaluated the damage and organized emergency activities needed to maintain the working system. Some professionals were in charge of obtaining fuel every eight hours to keep the generator working. Others had the responsibility of collecting water in improvised containers and recalibrating laboratory equipment.

On Monday March 1st, 2010 the Voluntary Blood Donor House started receiving volunteers with the professionals available at the time (most of the people came walking or on bicycle). Thankfully, the blood stock was stable due to regional donors and Santiago's voluntary donors that wanted to help Concepción by sending blood supplies.

The Concepción Blood Center's capacity to face and resist a catastrophe crisis

Fortunately on February 27, 2010 the Blood Center had an sufficient blood stock for responding to community demands for at least 7 days. Every one knew that sooner or later, a natural disaster of these characteristics may affect the area. This "benefit" allowed Blood Center professionals to develop the capacity to respond to difficult situations and to show their competence and special training so that their labour was not interrupted under any circumstance.

Electricity equipment operating on fuel allowed the Blood Center to continue its function. Thanks to this technology, the institution had light while the whole city was in dark.

The intensity of the earthquake also allowed the defining of institution weaknesses that may be very important to consider in the future, such as: the need to tie up heavy material to walls and floors and to acquire a especial shelf system preventing dangerous material spillage.

Solidarity in a catastrophe condition

Spontaneously, donors visited our Blood Donor House. The community showed their solidarity with life and blood donation by supplying the only Blood Center of the region. Many people decided to cooperate after the earthquake. Some of them visited hospital patients, meanwhile others helped in blood session organization and promotion.

After the earthquake, the Blood Center identified several flaws very important to consider in the future. We invite you to check our recommendations to reduce laboratories and Blood center vulnerability. These can be found on the ISBT website: www.isbtweb.org/knowledge-base/articles/



Top: Fallen equipment after the earthquake
Bottom: Embroidery "Giving Blood is Giving Life" at the Concepción Voluntary Blood Donors House

AMERICAS

World Blood Donor Day in the Western Pacific Region

World Blood Donor Day has a special significance to blood services across the Western Pacific Region, as an occasion to celebrate the vital contributions of their blood donors and encourage voluntary and regular blood donation. Many countries also take the opportunity to recognize champion blood donors at Blood Donor Appreciation Ceremonies.

Here is a snapshot of some of the WBDD2010 celebrations in our region.

More photos can be found on www.isbtweb.org



- 1 In Australia, young blood recipient Jacob Fry donated blood for the first time for World Blood Donor Day, along with his friends and family, as a way of thanking donors who saved his life.
- 2 Deputy Health Minister with blood donors on WBDD 2010 in Malaysia
- 3 Donors taking photos with the Expo mobile bus at the Nations Flag Square near the Sixth Exit at the World Expo 2010 Shanghai
- 4 Chinese Health Minister Chen Zhu meeting blood donors during WBDD2010 in the mobile blood collection vehicle parked in the Expo Park at the World Expo 2010 Shanghai
- 5 "Thank you blood donors" high school students in Busan, Korea

Global Launch of World Blood Donor Day 2010



The 2010 global launch of World Blood Donor Day was held in Barcelona and hosted by the Catalan Federation of Blood Donors, the Spanish Federation of Blood Donors, the Bank of Blood and Tissues, the Spanish Ministry of Health and Social Policy and the Health Department of the Government of Catalonia.

Under the slogan: "New blood for the world", Barcelona dedicated the year 2010 to young donors. With the aim of reaching young people and raising their awareness, the Barcelona strategy was structured on three pillars.

1. Youth activism by means of culture, leisure and values under the umbrella phrase "Barcelona is full-blooded."

The concept of the youth campaign appeals to the pride of belonging. It refers to the character of young people and steers them towards donating blood in a positive way. This is a flexible campaign that has been adapted both locally and internationally.

A new symbol for blood donation was developed with its roots in Catalonia. Throughout the campaign of WBDD2010 this symbol has received support of many individuals and institutions.

2. Scientific dissemination and innovation.

The Bank of Blood and Tissues organized on June 15 and 16, 2010 an international scientific seminar with specific workshops about blood donation.

The World Health Organization, together with the International Federation of the Societies of Red Cross and Red Crescent and the Health Department of the Government of Catalonia, organized on June 16-18, 2010 a training workshop on Achieving 100% Voluntary Non-Remunerated Blood Donation for priority countries in Europe and Central Asia.

3. Digital dynamism to promote blood donation among young people via social networks.

Internet social networks are becoming places for people to meet. There are studies that confirm that the adolescent population uses almost 100% of this format to communicate with each other. We have therefore taken the advantage of this situation and used this tool to promote altruistic donation among young people. We established collaboration with social networks and identified the most relevant groups and agents in order to ensure our presence on Internet. Since the launch of facebook and twitter "I am full-blooded" we have been promoting blood donation among young people in the interest related groups.

For the launch of World Blood Donor Day various activities took place. On June 13 a human blood drop mosaic was formed with the participation of about 700 people and there were typical shows from Catalonia including the Castellers (human towers). The fountains of Montjuic turned red in colour. A concert "Barcelona is full-blooded" was held for young people and included the indie pop-rock group "Love of Lesbian" and a rock band "Sold de Lagarto" as the supporting group. More than 3,000 people attended. A dinner was held at the Pedralbes Palace (courtesy of the Honorable Mrs. Marina Geli, Minister of Health of the Government of Catalonia).

On June 14 there was a reception at the City council followed by an institutional ceremony with the attendance of 1,000 people (government and health authorities, representatives of local, national and international institutions, associations of blood donors and donors). The ceremony included a homage to donors and recognition ceremony. There were speeches from government and health authorities and representatives from the core agencies of WBDD. Finally the baton was passed to Buenos Aires, Argentina host city of WBDD 2011.



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Upcoming Events

2010

October 9 - 12

AABB Annual Meeting
Baltimore, United States of America
www.aabb.org

October 18 - 21

HAA2010 - Combined HSANZ, ANZSBT & ASTH Annual Scientific Meeting
Auckland, New Zealand
www.haa2010.org/
haa@tcc.co.nz

October 21 - 24

XI European Symposium on Platelet and Granulocyte Immunobiology
Beaune, France
www.sfts.asso.fr/sympo-platelet
in-sc-sympo-platelet@europa-organisation.com

November 10 - 12

4th Transfusion Medicine Congress of Serbia
Belgrade, Serbia
www.transfmed2010.org/
n.denes@savacentar.net

November 24 - 26

Sixth Red Cross and Red Crescent Symposium
Tokyo, Japan
Japanese Red Cross Society and the Thai Red Cross Society
kokusai@jcr.or.jp

2011

February 9 - 11

13th International Haemovigilance Seminar
Amsterdam, Netherlands
www.eurocongress.com/ihs
ihs@eurocongress.com

April 14 - 15

Sanquin Spring Seminar: Advances in Clinical Transfusion Science
Amsterdam, Netherlands
sanquin@eurocongress.com

June 18 - 22

21st Regional Congress of the ISBT, Europe
Lisbon, Portugal
www.isbt-web.org/congresses
lisbon@isbtweb.org

November 20 - 23

22nd Regional Congress of the ISBT, Asia
Taipei, Taiwan
www.isbtweb.org/taipei
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