TRANSFUSION TODAY

Transfusion Today | Number 104, September 2015

ISBT

Picture courtesy of Rong Jiang Wang (Shanghai Daily).

Patient Blood Management

World Blood Donor Day 2015

Stem cell donors were honoured on world blood donor day in Tehran

Patient Blood Management resource for the Clinical Transfusion Working Party website

London Congress 2015

Contents

President Celso Bianco **Secretary General** Roger Dodd **Executive Director** Judith Chapman **Design** drukkerij Teewes **Photography** Transfusion Today **Advertising** Monique van Dorp, communication@isbtweb.org

Send all correspondence to ISBT - Marnixstraat 317, 1016 TB, Amsterdam, the Netherlands. T + 31 20 7601 760, F + 31 20 7601 761, communication@isbtweb.org.

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Judith Chapman

Editorial

The front cover of this issue of Transfusion Today shows the Shanghai TV tower lit up red against the night sky. The lighting of the tower was the final event of many activities that took place in Shanghai at the global launch of World Blood Donor Day. Representatives of the four founding partner of WBDD were joined by Prof Ming Yong Zhu, Party Secretary of the Shanghai Red Cross Blood Centre in pressing the button to light the tower red. The day is important in recognising the role that blood donors play in saving people's lives, the theme this year was 'thank you for saving my life.'

Blood transfusion has a central role in saving many people's lives. Over recent years the phrase Patient Blood Management has entered the transfusion medicine vocabulary. What exactly is it? In the focus section there is a brief introduction to PBM and articles from three different professionals who write about their role in it. One of these is from a Transfusion Practitioner and describes a project in a hospital in the UK aimed to minimise transfusion through following best practice guidelines. Transfusion Practitioners (TP) have an important role both in ensuring appropriate use of blood and safe and best practice. Recognising that TPs from around the globe do not often have the opportunity to meet each other ISBT organised a TP breakfast at its London congress, it had an international flavour with almost 50 TPs from 9 countries. It was an opportunity to share the challenges and successes of their PBM programmes. The event was very successful with positive feedback and it is ISBT's intent to follow it up with another breakfast at the 34th international congress in Dubai, September 3 – 8, 2016 and more sessions for TPs in the main programme.

The 34th International congress will only be one year away when you read this editorial. Dubai is an exciting, safe, multicultural city with stunning architecture. The congress will be held in one compact area of the convention centre with easy access across the corridor from session rooms to the exhibition. We invite you to join us in Dubai!

Cynthia So-Osman
Chairperson Clinical Transfusion WP
Staff member Dept Clinical Transfusion Research, Sanquin Research, Leiden, the Netherlands

Patient Blood Management (PBM) an introduction

Introduction
Large audits show that 15 to 20% of blood transfusions are still inappropriately used and that a large variation in transfusion practice exists [1][2]. These observations show, that the implementation of best transfusion practice in daily practice is often difficult. This is not only relevant for the implementation of transfusion threshold guidelines, but also accounts for the number of transfusions given at each event to reach a certain target Haemoglobin (Hb) level, in which a two unit transfusion policy instead of a single-unit transfusion policy is still standard practice [3].

In order to optimize clinical blood use, Patient Blood Management (PBM) has been introduced in Transfusion Medicine as an evidence based best practice that is based on three approaches (pillars): 1. optimising the patient's own blood; 2. minimising surgical blood loss and bleeding; and 3. harnessing and optimising the patient-specific physiological reserve of anaemia (including restrictive transfusion thresholds) [4].

This approach was firstly applied in the surgical patient population and included pre-operative, intra-operative and post-operative strategies for managing the patient, such as alternatives for RBC transfusions, but also surgical and anesthesiological strategies to minimize blood loss. Nowadays, PBM has been extended to all patients who may need a blood transfusion, including the medical, obstetric and paediatric patient. Due to the continuing downward trend in surgical blood use, but a stable, non-decreasing blood use in medical and obstetric/gynaecological patients [5], the non surgical patient group is becoming more and more important and should not be left out in a PBM program. For example, patients with myelodysplastic syndrome (MDS) represent an important clinical group, since unlike surgical patients, the MDS patient typically requires transfusion support over months or years. Due to the ageing population, it is expected that this group will expand.

In a PBM program, education of medical staff is an essential step in the process. This should be given by a group of "champions", meaning dedicated staff consisting of transfusion practitioners (TPs), anesthesiologists, surgeons, hematologists, transfusion scientists and others involved in transfusion medicine in combination with a dedicated hospital blood transfusion committee [6]. Implementation of a restrictive red blood cell transfusion policy is another essential part of a PBM program. Nowadays, enough evidence is available to conclude, that a restrictive transfusion threshold is safe and cost-effective in all patients, except for patients with acute coronary syndromes [7, 8]. Of course, appropriate use of platelet and plasma transfusions should also be taken into account; however, this is supported by less evidence.

Due to the ageing population the demand for blood and blood products may increase while concurrently the pool of donors may decrease. By reducing the need for allogeneic blood transfusions, PBM can reduce health-care costs [9]. Therefore, clinical use of blood and blood products must be further optimalized. Implementation of a PBM program is therefore an essential tool to reach this goal.

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Amanda Thomson
Transfusion Medicine Specialist, Australian Red Cross Blood Service
Kelvin Grove, Australia
Co-chair Expert Working Group National Patient Blood Management Guidelines Development

Sandra Minck
Medical Officer, Australian Red Cross Blood Service
Kelvin Grove, Australia

PBM - The role of general practitioners

Introduction
Patient blood management (PBM) is not an intervention or alternative to transfusion; it is good clinical practice [1]. The goal of PBM is to improve patient outcomes by conserving and managing the patient's own blood; that transfusion is often reduced is a side benefit.

PBM is based upon principles including:
- Identifying and managing anaemia and iron deficiency
- Reducing bleeding and blood loss
- Working with tolerance of anaemia, thrombocytopaenia and coagulation abnormalities and ensuring that use of transfusion is in line with best practice.

Role of the General Practitioners
General practitioners (GPs) play an important role in PBM care: they have the opportunity to identify and manage problems early and are care coordinator, referrer and facilitator of patient-centred decision making [2].

Historically PBM has primarily been applied to surgical patients to minimise red cell transfusion rates, however it applies to all patients and all blood components. In Australia, evidence-based PBM guidelines [3] have been developed across the range of patient groups.

Iron deficiency and anaemia are associated with significant morbidity and mortality. Anaemia is the most common haematological disorder encountered in general medical practice. One of the key roles GPs have in PBM is the detection, investigation and management of patients who are, or may be, at risk. The PBM guidelines outline three evidence based recommendations highly relevant to general practice (Table 1). The guidelines also contain practice points and expert opinion points to guide practice where evidence-based recommendations could not be made.

There are an increasing number of programs and resources being developed around the world to facilitate improved investigation and management of iron deficiency and anaemia. Examples of tools in use in Australia include a template algorithm for preoperative haemoglobin assessment and management [3] (Figure 1). This has been adapted, for example, in the GP assessment of preoperative joint replacement candidates [4,5]. Other tools include an iron deficiency anaemia assessment App [6] and an iron dosing guideline [7].

The Airedale NHS Foundation Trust, Steeton, UK, have published their experience of implementation of a preoperative blood management algorithm for primary hip replacement. This was administered by preoperative assessment nurses and if indicated patients were referred to their GPs for oral iron therapy (and/or investigation of their anaemia per se). Significant improvements in outcomes were found, with the potential to save costs [8].

Availability of newer iron preparations has seen management of patients requiring IV iron replacement being performed in the primary care setting [9]. This improves patient care by providing faster, easier, less expensive access; and greater opportunities for continuity of care.

Patients who require management with anticoagulant and or combination antiplatelet therapy are increasingly common. Careful management to reduce bleeding risk, an important principle of PBM, is required by GPs and specialists. Ensuring patients have an accurate medication list, including complementary medicines which may affect haemostasis, is essential. Patients who are scheduled for surgery where significant blood loss is likely require careful pre-operative planning. Early GP referral for specialist or multidisciplinary input may be required.

GPs play a role in helping their patients be involved in the

decision making about their blood management, including decisions around transfusion. Transfusion has often been a default decision, with other options possibly not being explored. Patients should be encouraged to ask what the options are for their blood management, to be informed of the benefits or risks and how these apply in their situation. Providing patients with questions which will help them obtain information to make care choices is important. An example is shown in Figure 2 [10].

The GP role is therefore important in all aspects of blood management, and GPs must be engaged to help ensure best outcomes for their patients.

Acknowledgment:
Australian governments fund the Australian Red Cross Blood Service for the provision of blood, blood products and services to the Australian community.

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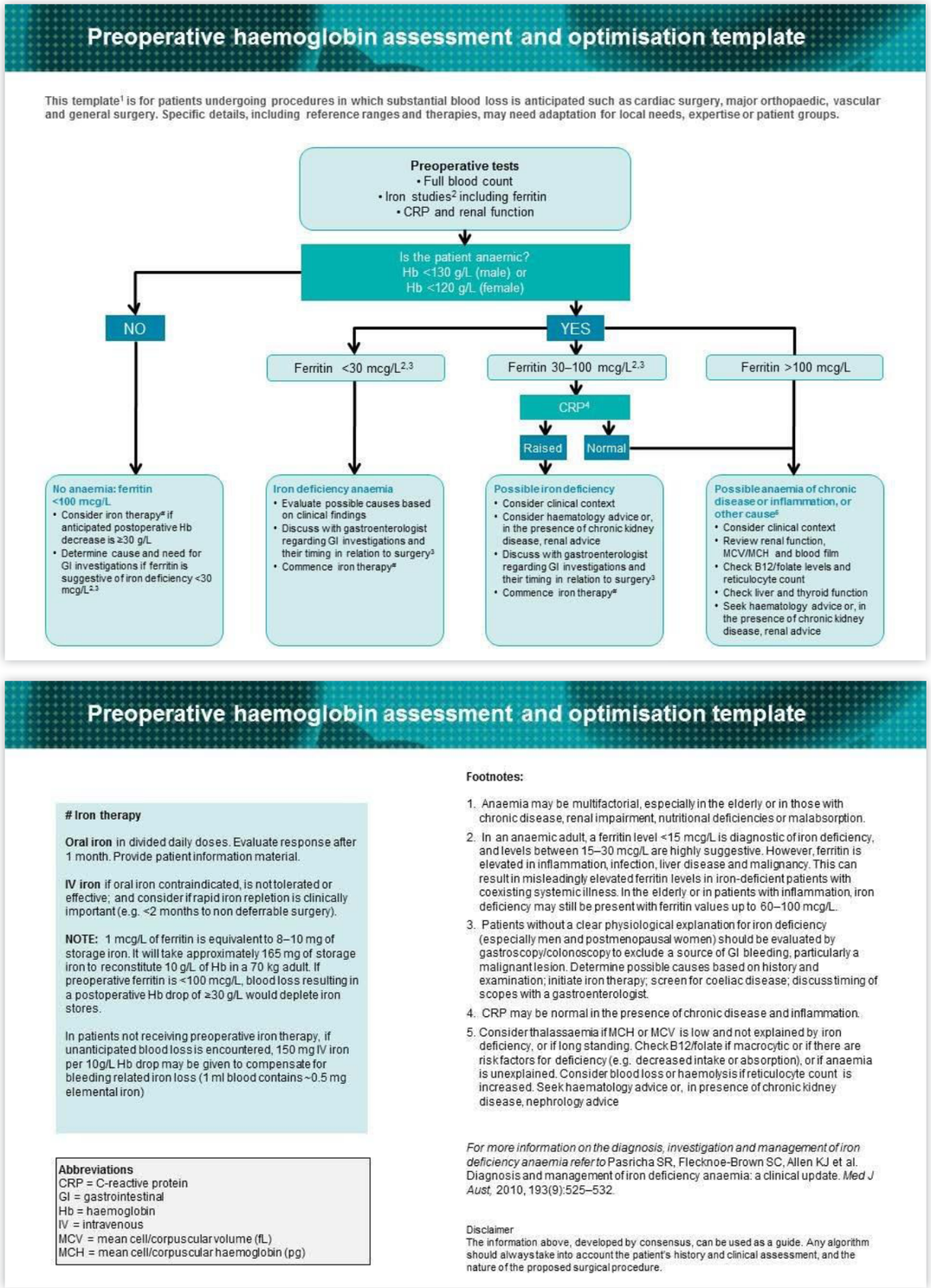
Table 1 – Evidence based recommendations for the identification and treatment of iron deficiency [3]

Condition	Evidence based recommendation
Chronic heart failure	In patients with CHF, identification and treatment of iron deficiency (absolute and functional) is recommended to improve functional or performance status.
Obstetric and maternity	The administration of iron to pregnant women with iron deficiency anaemia is recommended; IV iron is preferred when rapid restoration of Hb and iron stores is required.
Preoperative anaemia	In patients undergoing cardiac and non-cardiac surgery, preoperative anaemia should be identified, evaluated and managed to minimise RBC transfusion, which may be associated with an increased risk of morbidity, mortality, ICU length of stay and hospital length of stay (Grade C).

Figure 1: Preoperative haemoglobin assessment and optimisation template [3]



PBM- the role of the Anaesthetist

Dafydd Thomas
Assistant Medical Director, University Health Board, NHS Wales, UK
Consultant Anaesthetist SHOT

Background
The concept of trying to minimize the amount of transfused blood components to surgical patients is not new and has been practiced is some institutions by some clinicians for almost three decades. However like so many things these days there is a need for rebranding and a more focused approach. The term, patient blood management (PBM), was proposed by Prof. James Isbister and the term has been adopted much more widely due to the successful implementation in Western Australia where PBM was introduced in a form heavily influenced by the Austrian experience.

Role of anaestetist
The role of the anaesthetist is to ensure that the patient due for surgery is assessed comprehensively for the physiological challenge ahead. In this regard the review of cardiorespiratory reserve is essential. The delivery of oxygen to end organs such as brain, kidneys, liver and gut and the maintenance of that delivery are of great importance in terms of recovery from surgery as well.

The level of haemoglobin (Hb) prior to surgical intervention and an unpredictable amount of blood loss therefore becomes important. It would be unwise to start off on a long car journey without first filling the tank with fuel. The optimization and correction of any anaemia becomes a priority at pre-operative assessment, along with ensuring that cardiac function and respiratory reserve is optimised. This can be done in a variety of ways but iron deficiency can be treated quite simply with iron supplements or if no response by intravenous iron. In order that this can be undertaken when iron deficiency anaemia is recognized, a pathway for investigation and treatment needs to be established in advance so that referral can occur efficiently and easily. Other forms of anaemia that are less common will equally need correction.

During surgery the anaesthetist can minimize blood loss by administrating tranexamic acid which helps by preventing clot breakdown by inhibiting plasminogen conversion to plasmin. In addition manipulating blood pressure, keeping venous congestion at the operative site as low as possible also reduces surgical bleeding.

When bleeding occurs the use of cell salvage autotransfusion has been shown to be safe and effective in reducing the need for allogeneic blood transfusion. Again ensuring that there is well trained staff and equipment readily available requires prior planning and anesthetists often take a lead in supervising such a service.

Ensure Haemostasis
The surgical skill and attention to haemostasis is of course essential in a PBM programme and there are a number of techniques such as minimal access surgery that has led to a reduction in the need for blood transfusion. In difficult vessel injuries locally applied haemostats such as surgicell and bioglues can aid haemostasis in addition to diathermy and ligatures and clips.

Probably the most significant role that an anaesthetist can influence is by withholding the transfusion of unnecessary blood components providing the patient is haemodynamically stable. Evidence has accumulated to show that near patient monitoring can help the transfusion decision making by giving rapid assessments of Hb level and Point Of Care (POC) clotting assessment with ROTEM or TEG. The continuation of such patient centric care can be continued into the post-operative period on intensive care or high dependency units or ward areas.

The anaesthetist plays a key role of interface between the surgical team and the laboratory, facilitating good evidence based practice and decreasing the anxiety that is often displayed at both ends of the transfusion chain where there is a stressed surgeon trying to stem the bleeding and an under pressure biomedical scientist who is trying singlehandedly to issue blood components quickly and safely!

Mark Grumbridge
Senior Transfusion Practitioner
National Health Service, United Kingdom

Innovation and efficiency in PBM - the role of the Transfusion Practitioner

Overview
Patient Blood Management (PBM) is a multidisciplinary, evidence-based approach to optimising the care of patients who might need blood transfusion. PBM puts patients at the heart of decisions about blood transfusion to ensure they receive the best treatment and inappropriate use of blood and blood components is avoided . Donated blood is a limited and expensive resource (only 4% of the UK population donate regularly). Blood transfusion may be associated with short and long term complications and should therefore be used cautiously. Historical laboratory data showed an average of 55,000 samples analysed in blood banks annually with around 33,000 units of blood issued for transfusion. The British Committee for Standards in Haematology (BCSH) recommend that the cross match to transfusion ratio (C: T) for elective procedures should be between 2 and 3.1. A retrospective analysis of our blood transfusion service by transfusion practitioners showed that too many blood units ordered pre-operatively for surgical patients were returned unused, resulting in cross match to transfusion ratios greater than 3.1.

Aim of the project
This project, wholly managed by the Transfusion practitioner team, aimed to minimise unnecessary transfusion of blood through adherence to best practice guidelines. It was anticipated that there would be a reduction in transfusion related complications as well as financial savings through the purchase of fewer blood units. The retrospective analysis confirmed that there had been considerable blood wastage. The service was reviewed through audit and prescriber feedback, with the aim to implement incremental process change whilst continuing a safe, effective service and complying with national guidelines.

Maximum Blood Ordering Schedule
The maximum blood ordering schedule (MBOS) is a non-standardised practice for ordering blood for elective surgical patients. As pre-operative crossmatching of blood units is performed for potential (rather than actual) transfusion need, a considerable volume of blood issued is unused. During each stage of our three part audit, current practice was compared

to local (MBOS) and national standards (BCSH guidelines). Retrospective analysis of blood ordering and usage in 2521 pre-operative requests was performed. C: T ratios for individual surgical procedures were calculated and following engagement with the clinical teams, an evidence-based MBOS was implemented. This MBOS was revised after each stage, resulting in further incremental reductions in unit's cross matched for elective surgery.

Outcomes
Following review and implementation of the two key process changes there are 200 fewer blood units transfused each month. There has been a concurrent 30% reduction in transfusion reactions. Revisions to the MBOS have led to a sizable decrease in the pre-operative ordering of blood. Before MBOS revision there were 293 crossmatch requests for elective procedures each month, with 748 units issued and 148 units transfused. After the MBOS revision an 18% reduction in cross-match requests was achieved (54 per month). This achieved an annual saving of £300,000 due to the purchase of fewer units from NHSBT and a reduction in crosshatching costs. In reviewing this schedule we took the opportunity to engage with our clinician prescribers and provide them with transfusion data for their own specialty.

Summary
The publication of national guidelines such as "Better blood transfusion" has challenged hospitals to review local service provision to ensure that best practice is followed to enable a safe and efficient service with blood conservation a priority. Clinical engagement was paramount: surgeons were provided with data which detailed their blood use and waste.
A multidisciplinary approach combining surgical and transfusion staff allowed the implementation of mutually agreed changes in an effort to improve safety, ensuring blood requests are appropriate and reduce waste. The service is based on the evidence obtained from local audit and is compliant with national guidance. Transfusion costs have reduced and more importantly, patient safety has improved by a reduction in the clinical risks associated with transfusion.

References
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Blood Ordering Schedules By Surgical Discipline

ANY PROCEDURE NOT LISTED MUST BE DISCUSSED WITHIN YOUR TEAM AND BLOOD BANK

General Surgery

Procedure	Requirement
Adrenalectomy	2 unit Cross Match
Gastrectomy (full or Partial)	2 Unit Cross Match
Oesophagectomy	2 Unit Cross Match
Pancreatectomy	2 Unit Cross Match
Splenectomy	2 Unit Cross Match
Bile duct stricture repair	2 Unit Cross Match
Colectomy – Total, Hemi	2 Unit Cross Match
Anterior Resection	2 Unit Cross Match
Lleo anal pouch	2 Unit Cross Match
Laparotomy - +/- Proceed	G&S
Thyroidectomy / Parathyroidectomy	G&S
Cholecystectomy	G&S
Mastectomy	G&S
Amputation	2 Unit Cross Match

Obstetrics & Gynaecology

Figure 1 - Created MBOS example page following the audit

Celso Bianco
President, International Society
of Blood Transfusion (ISBT)

Haemovigilance and PBM: a fresh perspective

Background
Efforts to address the AIDS tragedy of the early 1980's drove the development of follow-up approaches to mitigate adverse reactions associated with blood transfusions. Comprehensive programmes were created in France (Haemovigilance) and in the United Kingdom (SHOT, Serious Hazards of Transfusion) in 1996. The concept spread around the world with creation of similar programmes and constitution of a very active ISBT Haemovigilance WP. This year the World Health Organization published an Aide-Mémoire with recommendations for national haemovigilance systems [1].

Haemovigilance
Haemovigilance programmes extended our focus from prevention of diseases transmissible by transfusion (serious but rare events) of the 80's and 90's, to other more frequent, serious clinical consequences that could be prevented. Among the successes were: reduction of TRALI events by the preferential use of male plasma and the decline in bacterial contamination observed after introduction of bags with diversion pouches. Ultimately, Transfusion Committees became stronger, and new clinical trials lead to the development of evidence-based transfusion guidelines and triggers, generating the new vision of Patient Blood Management (PBM) in Transfusion Medicine, a program for rational, evidence-based practice of transfusion.

Despite its contributions, Haemovigilance is a one-sided assessment of the outcomes of transfusion because it only measures bad outcomes; it does not measure successes or lives saved. Haemovigilance and PBM, by their nature, promote reduction of the number of components transfused and consequently, reduction of costs. Tragically, the most common measure of success of PBM is not the increase in appropriate transfusions and successful patient outcomes (difficult to measure). It is the percentage reduction in transfusions and in costs (easy to measure) observed after implementation of the new practices.

PBM programmes led to a substantial reduction in blood component collection and transfusion in many high HDI countries. Clinical trials showed that patients subjected to restrictive transfusion strategies do as well as patients under liberal transfusion strategies. Most of these trials looked at large hospital patient populations, and not at individual patient outcomes. Reduction of transfusions has been evident in the United States, where blood is part of a market economy, not subsidized by the government. For instance, a reduction of 30% was observed in 4 years at a major hospital chain; there were no changes in 30-day mortality observed among patients [2]. Actually, fierce competition within the USA market and the hospital search for the lowest components costs, have had unclear medical consequences for the recipient population. Blood is considered a drug (medicine) by regulators. However, it was never subjected to clinical trials as drugs with indications for use when benefits exceed risks. There are very few studies of the benefits of transfusion. A literature search for "clinical evidence of blood transfusion effectiveness" identified a single reference [3]. Clinical trials have valorized red blood cell transfusions in sickle cell patients, in trauma and in surgical oncology patients and reduction in mortality of cardiac surgery patients.

Unfortunately, we are witnessing in the U.S. a perverse convergence of haemovigilance and PBM with the financial interests of health provider organizations. Cost became the major source of concern of health systems, government and the population. Austerity is the basic rule and austerity is contagious. Haemovigilance and PBM are being transformed into programs for reduction of transfusions instead of appropriate transfusions.

We, the Transfusion Medicine practitioners, need to restore a balanced vision of transfusion as a therapy based on evidence, in the same way we approach pharmaceutical products, with a complete description and consideration of both, benefits and risks. We need to add to Haemovigilance and PBM data collection and analysis of clinical results and lives saved by appropriate transfusions. Our patients deserve well-indicated transfusions that result in successful clinical outcomes, instead of recommendations for rejection of transfusions because of fear of adverse reactions.

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PBM resource available on the ISBT website

Shubha Allard
Consultant Haematologist
Barts Health NHS Trust and NHS
Blood and Transplant

Introduction
Patient Blood Management (PBM) is an international initiative promoting an evidence-based, multidisciplinary approach at optimising the care of patients who might need transfusion. The key principles entail the appropriate use of blood and blood components only when indicated with the timely use of alternatives where appropriate and available.
A recent survey undertaken on behalf of the ISBT Clinical Transfusion Working party with 270 respondents from several countries indicated a major interest in the topic and highlighted a real need for the development of resources to help support the wider implementation of PBM. Accordingly in direct response to the suggestions from the respondents from this survey we have developed a website resource around key aspects of PBM.

What are we aiming to do?
Various PBM topics will be covered by the ISBT Clinical Transfusion Working representing experience from a number of countries. We are aiming to structure the content around some sub headings where appropriate as follows
1) Introductory explanatory paragraph with some background as to why the specific topic is important within context of PBM
2) Brief summary on evidence base to support (or equally if lack of evidence!)
3) Relevant guidelines available on topic with web links
4) Examples of any practical tools available to support implementation

We will also aim to include training material with links to support implementation where feasible - much of this training material may be more generic around PBM as a wider topic. Where available, examples of key audit questions with links to audit templates will be provided together with an additional reading list. Pulling together available information from different countries for this resource will no doubt also highlights gaps and future developments needs for additional material to support various aspects of PBM. To avoid duplication, we will aim to provide links to relevant sections of the ISBT website and in particular to the Academy ePortal.

What have we achieved so far?
We have pulled together a project group with representation from various countries and also including Transfusion practitioners and we have identified the topics below to prioritise development. The following subheadings have already been drafted and shortly will be available as a resource at http://www.isbtweb.org/working-parties/clinical-transfusion/. Members of the ISBT Clinical Transfusion Working drafted the initial content which was reviewed by others within the project group with further editorial review before upload onto the website. The ISBT Central Office have greatly assisted with this process with upload of material, provided links to other areas of the ISBT website and references with keeping oversight of copyright issues. (See Figure 1)

Future plans and the way forward – your feedback would be helpful!
We will continue to work on the other topics as listed above and will aim to develop any further topics as these are highlighted in future – we are keen to have feedback from users of this resource which will help ensure that our efforts are along the right track. We also need to consider ways of making the material more interactive and using a variety of media e.g. power point slides and videos. It is also essential to have a robust mechanism for ongoing review and oversight of the material posted to ensure that this remains an up to date resource.

If you do have any comments then please send to me (Shubha Allard, shubha.allard@nhsbt.nhs.uk) or ISBT's Scientific Officer (Dianne van der Wal, science@isbtweb.org).

Figure 1: screenshot of the new resource

Celso Bianco

The focus of this issue of Transfusion Today is Patient Blood Management (PBM). This is probably the most important patient-centric theme in Transfusion Medicine today. Our contributors define PBM and explain the concepts of evidence-based transfusion practices, i.e. appropriate indications of blood transfusion based on solid scientific evidence and the appropriate use of alternative therapeutic agents when indicated.

Only some areas of Transfusion Medicine have been the subject of clinical trials and have clear guidelines that serve as the basis for appropriate transfusion practices. However, a solid body of knowledge exists and is being successfully disseminated by PBM programmes in countries where blood availability is not an issue, and where the use of blood had been quite liberal. As new clinical trials proceed and more knowledge is generated, patients gain more effective therapies and are less exposed to risk.

Some countries have observed a 30-40 percent decline of red blood cell transfusions after widespread implementation of PBM, with consequent consolidation of organizations and facilities, and staff reductions. Unfortunately, these declines have also affected manufacturers of products used in transfusion leading to a reduction in investment in research and development, in new technologies and in new products worldwide.

This is not a unique phenomenon in healthcare. Evidence-based practices are leading to awareness and change regarding the overuse of antibiotics, laboratory assays, drugs and procedures that do not clearly contribute to the quality and outcomes of patient care.

Many countries around the world, particularly those with medium and low Human Development Index (HDI) struggle to maintain an adequate supply of volunteer blood and have not yet implemented PBM programmes. I hope that the articles and references in this issue of Transfusion Today will help professionals realize that, in parallel with their efforts in recruitment of qualified blood donors, PBM programmes and the resulting appropriate use of the products will help them reach their collection goals, improving blood availability and consequently patient care. Implementation of PBM requires a lot of effort. However, I guarantee that the benefits are well worth the effort.

Celso Bianco
ISBT President

Welcome to our new members

(January 2015 - August 2015)

Africa

- **GHANA:** SAMUEL APPIAH DANSO, SIMON MANU
- **KENYA:** ESTHER MANDANIA, SOPHIE UYOGA
- **NIGERIA:** IDRIS SALIU, IFEOMA OGBUE, KINGSLEY ODIABARA
- **SOUTH AFRICA:** DHEEVIASOVINDHREE SILVIA GOUNDEN

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- **BELARUS:** ALA NOVIK
- **BELGIUM:** ELS COSTERMANS, MARIE-PIERRE RODENBACH, NICOLAS DE VALENSART, NIGEL TALBOYS, SYLVIE FRANCOIS
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- **FINLAND:** MIRKA SIVULA, SATU PASTILA
- **FRANCE:** ANNE-MARIE FILLET, FABRICE COGNASSE, MICHEL MONSELLIER, RACHID DJOUDI, SORAYA AMAR, STEPHANE BEGUE
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- **ITALY:** ANTONIO BOTTONE, DANIELA RAFANELLI, ROSSANA PUTZULU, SILVESTRO VOLPE, SONIA RAIMONDI
- **KOSOVO:** BUKURIJE ZHUBI, HYSEN SADRIU
- **NETHERLANDS:** ALEXANDER VLAAR, DIRK VERSTEEG, EDDY HILBRINK, EELO GITZ, EVA-MARIA MERZ, KATJA VAN DEN HURK, MICHIEL HERON, ROSA DE GROOT, RUTGER MIDDELBURG, WILLEM LICHTENAUER
- **NORWAY:** INGUNN WIDERØE REITE
- **RUSSIA:** IRINA ZONOVA
- **SERBIA:** DRAGANA POPOV, F GRKOVIC, MILICA DUKIC-NOVAKOVIC, NEVENKA BUJANDRIC, RODIC IVANA, S. DRNDARSKI, SASA MILUTINOVIC
- **SLOVENIA:** PRIMOZ ROZMAN, ALFREDO PARREÑO, AZUCENA CASTRILLO FERNANDEZ, IÑIGO ROMON, MERCEDES LOPEZ-SOQUES
- **SPAIN:** ALFREDO PARREÑO
- **SWEDEN:** DAVID FINNSKOG, PIA WERNDRUP
- **SWITZERLAND:** ANNA GALVANI, ANTJE PIENING, LORENZ AMSLER, THIERRY HUMBEL
- **TURKEY:** CEM BORA GULER, NAFIZ KOCAK
- **UNITED KINGDOM:** AMANDA DAVIES, ANDREW LANE, ANN-MARIE ELLIS, A RAVINTH RAJAMANI, ASAAH NKOHKWO, ASTRID LODGE, CANDICE DAVISON, CHRISTINE DAVIES, CHRISTOPHER RAJKUMAR, DAVID PYE, GRAHAM OAKES, HENNA WONG, MARTA CHECCHI, MOHAMED AL ZAABI, MUSIBAU BALOGUN, NIVEEN ABDULLAH, NKAMBE MOSALEKA CHAKALA, RACHEL MOSS, RADHIKA BHANDARI, REGINAH PARADZA, ROBERT REILLY, SIU YEE CHENG, SUE DAVEY, SUZANNE MORTON

South East Asia

- **INDIA:** AMIT AJAY PAWAR, ANJU VERMA, BIPINCHANDRA KOTHARI, JAYANT UMALKAR, MEETAL SHAH, PRITI DESAI, RASHMI SOOD, SANJAY UPRETI, SUREKHA DEVI ALLNKII
- **INDONESIA:** NANIK VAN WINGERDEN, UKE MUKTIMANAH DJUHJAR
- **MYANMAR:** KYU KYU SWE, NWE NWE OO
- **SRI LANKA:** ANIL DISSANAYAKE, NIHAL GUNARATNE

Western Pacific

- **AUSTRALIA:** ANDREW TRACY, ANGELA MARIE MONK, APRIL HABERFIELD, DANIEL WALLER, GEMMA CRIGHTON, HAYLEY BROWN, INA MESSIG, KYLIE VENARDOS, LOUISE KNAUTH, MARK LANGSHAW, MATT BELLINGHAM, NORA DANIEL, PAUL ELLERY, PHILLIP MONDY, SKYE ABRAHAM, STEPHANIE SCOTTON, THOMAS MARTIN, YEN SIEW LOH
- **CHINA:** GUANGPING LUO, JI YANLI, JIANG CHEN, JIANYAN LIN, MIN FEI, MINGAN XU, RONG XIA, WEN YIN, WENJIE XIA, XIUZHANG XU
- **JAPAN:** DAISUKE TAMURA, HIROSHI NAGUMO, NAOKO GOTO, TADASHI NAGAI, TAKAO KUNORI
- **PHILIPPINES:** BERNADETTE ESPIRITU, ELIZABETH ARCELLANA _ NUQUI, MA. CECILIA AMARO
- **SINGAPORE:** CARLUM SHIU
- **SOUTH KOREA:** DEOK-JA OH, GIHWAN CHOI, HAIYOUNG JUNG, JIN HYUK YANG, JINSEOK KANG, JUNGWON HYUN, LEE EUN HEUY

25th Regional Congress of the ISBT, London, June 2015

The 25th Regional Congress of the ISBT was held in conjunction with the 33rd Annual Conference of the British Blood Transfusion Society.

The congress was held at the Excel exhibition and convention centre situated in Docklands, East London. Fortunately the British weather smiled on us and it was warm and sunny during all five days even allowing delegates to sit outside during the congress party.

The congress started with the UK Serious Hazards of Transfusion (SHOT) symposium. During this symposium SHOT launched its 2014 report. The day included different aspects of transfusion safety including a global perspective. The Academy day on Sunday consisted of two parallel streams. The sessions were extremely educative covering all aspects of transfusion from the donor to the patient and attracted excellent attendance with full session rooms.

The main scientific programme was put together by Martin Olsson and a local scientific committee chaired by Jonathan Wallis. There were 38 sessions with the parallel sessions run in five tracks that have become familiar to ISBT congress delegates. 1143 abstracts were received from 81 countries. 132 were accepted for oral presentation, 856 for poster presentation and 154 (13%) were rejected.

69 invited speakers participated in the Academy day and main scientific programme giving excellent presentations many of which can be found on the ISBT Academy ePortal.

2619 delegates registered for the congress and with the 1101 exhibition crew members made a total of 3720 participants, the highest number for an ISBT European congress. Delegates came from 104 countries.

Industry was well represented and delegates had plenty of opportunity during the welcome reception, coffee, tea and lunch breaks to visit the booths and exchange information with the 92 exhibitors.

A new feature at the congress was the Transfusion Practitioners breakfast which took place early on Sunday morning and gave Transfusion Practitioners attending the congress the chance to meet each other and share ideas and concerns. The discussion over a hot breakfast focused on the different aspects of patient blood management. You can read more about it in the article in this issue of Transfusion Today. The Young Investigators breakfast session attracted almost 40 participants and they were joined by 12 mentors. There was a good exchange of information and sharing of the joys and challenges of research. The congress would not have been complete without the social programme; the opening ceremony included a show of music and dancing from the four regions of Britain, the speaker's dinner took place in the Great Hall of St Bartholomew's hospital one of the oldest hospitals in Europe where the speakers were able to view famous works of art by Hogarth. The congress party was held in the Museum of London, Docklands and those present were able to tour the museum, as well as enjoy good food and drink and the renewing of friendships with colleagues from around the world in the sunshine in the area outside the museum or dancing inside to the sounds of the live band Monaco.

The London congress was Martin Olsson's last as ISBT Scientific Secretary. Martin was presented with the ISBT Award at the Opening Ceremony and thanked for the outstanding contribution he has made over the last four years in ensuring a high standard of science at the congresses.

Rachel Moss
Transfusion Practitioner
Imperial College Healthcare NHS Trust, London, UK

Amanpreet Dhesi
Regional Lead: Patient Blood Management Practitioner Team
London, UK

Transfusion Practitioner Networking Breakfast

ISBT hosted the first international TP Networking Breakfast at the 25th ISBT Congress, London. The Transfusion Practitioner (TP) or equivalent (e.g. Transfusion Safety Officer, Haemovigilance Officer, PBM Practitioner/Nurse, etc) has a critical role to play in developing a Patient Blood Management (PBM) culture within healthcare establishments. Key is that TPs must have access to a strong network of peers and other multi-disciplinary stakeholders to ensure sharing of best practice, benchmarking, overcoming barriers and generating new ideas and this was the ethos of this inaugural breakfast meeting.

The meeting was informal to allow sharing of ideas of being at the sharp end of transfusion practice including PBM. With thanks to the expert table leads and armed with coffee and a hot breakfast roll, the participants chatted at over 8 tables on topics covering; haemovigilance, audit, cell salvage, anaemia management, massive haemorrhage, transfusion triggers, developing the TP role, empowering the lab staff and general PBM.

The TPs represented over 8 different countries and even with the early morning start (7.30 AM on a Sunday!) 48 all made it to East London and according to the feedback all participants found the event useful. 100% of participants rated the event as either excellent or good with 97% found the event excellent and good for making new connections.

Feedback from the TPs themselves:
'Really enjoyed the session, like minded people'
'Excellent and informative exchange of experience'
'Fantastic opportunity to network. Very interesting discussions'
'Excellent opportunity to network and learn about different approaches to achieving goals'
'Nice to meet people from other countries, you can compare standards'
'Interesting learning how other countries work'
'Fantastic idea, very informative'
'Useful debates'
'Very worthwhile, early start today'

When I was catching up with a TP from London, two weeks after the event she wished the event happened a long time ago. The discussions gave her the information she needed to move past barriers in her own NHS organisation to extend the use of cell salvage in certain areas (such as cancer surgery) where there is strong opposition to it.

ISBT will be assessing the need for an online TP forum where these examples and discussions can be shared to continue to support those were local networks are less established, as one participate commented 'would love to be part of a bigger network'. ISBT will also be looking to support TPs with online resources via the Clinical and Haemovigilance Working Parties.

For the future ISBT Congresses, the TP Networking event may become well integrated, well-known and popular since there are many possible future topics to discuss and transfusion experts to discuss them with, although many people felt that a whole evening programme might be a good idea instead.

China hosted the 12th WBDD

Ziyan ZhuShanghai
Shanghai Blood Centre

Every year, on 14 June, countries around the world celebrate World Blood Donor Day (WBDD). This event is organized to thank voluntary unpaid blood donors for their life-saving gift of blood and to raise awareness of the need for regular blood donations to ensure quality, safety and the availability of blood and blood products for patients in need. The theme of this year's campaign was "Thank you for saving my life". China hosted the 12th WBDD and over 1,000 participants from 16 countries and 6 International Organizations, as well as local delegates, attended the event.

Picture courtesy of Rong Jiang Wang (Shanghai Daily).

The activities included:

- Round table discussions on promotion of Voluntary Non-remunerated Blood Donation
- Music Opera of Voluntary Blood Donation 'You are in My Future'
- WBDD 2015 Global Events Celebration
- Exhibition on Voluntary Blood Donation Achievements around China

During the round table discussion, participants addressed the challenges and barriers of promoting voluntary non-remunerated blood donation to meet patient needs and crafted the strategy to improve voluntary non- remunerated blood and plasma donation.

The WBDD 2015 Global Events Celebration was held at China Art Museum in Shanghai. Representatives of donors and volunteers all over China received gratitude from the society in a ceremony. In a Promotion Video – 'Voluntary Blood Donor Tour in China', not only beautiful scenes of China were shown, but also exciting and memorable moments were displayed. In the presence of all distinguished guests and donors, a time capsule which contained best wishes to Voluntary Blood Donation in the future was officially sealed and is scheduled to be opened over ten years.

During the exhibition on Voluntary Blood Donation Achievements around China, pictures, donation souvenirs and gifts from different Chinese provinces and cities were displayed. At 7pm, the Oriental Pearl Tower, the landmark of Shanghai, was lit up to celebrate World Blood Donor Day. Hundreds of voluntary blood donors and volunteers marveled at this beautiful moment when "Life Red" lights illuminated the night sky of Shanghai, enticing more people to save lives by donating blood.

Safe transfusion of blood and blood products helps to save millions of lives every year. It can help patients suffering from life-threatening conditions to live longer and with a higher quality of life, as well as it supports complex medical and surgical procedures.

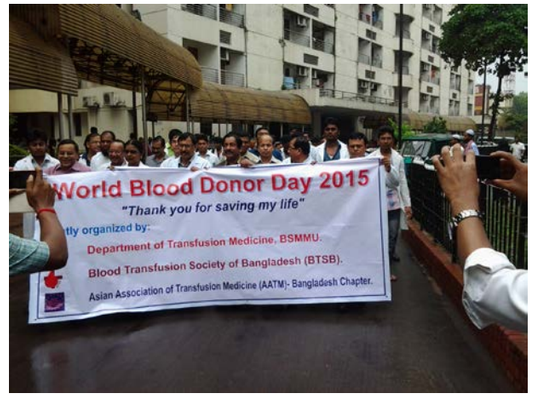
Celebrating World Blood Donor Day in Bangladesh

Ashadul Islam
Secretary (Bangladesh Chapter)
Asian Association of Transfusion Medicine (AATM)

WBDD was jointly organized by the Department of Transfusion Medicine, Blood Transfusion Society of Bangladesh (BTSB) and the Asian Association of Transfusion Medicine (AATM), Bangladesh with the help of students from the Trauma affiliated institutes in Agargaon, and Dhaka under supervision of Mejbahuddin Ahmed. The programme started with a march consisting of 200 delegates at the BSMMU Campus followed by a discussion on a voluntary blood donation programme.

In Bangladesh 31% of blood donations are voluntary, whereas 69% are from relatives. Professor Sharfuddin Ahmed urged people to donate voluntary and motivated also all relatives to start donating blood on a regular basis.

Professor Ashadul Islam talked about the importance of the government's support to form a National Blood Centre and National Authority in order to coordinate blood donation activities centrally to ensure safe blood for anyone in the country. Celebrating WBDD creates an opportunity to recognize those who donate blood regularly and with this, save lives of those in need. The discussion was closed by Professor Jolly Biswas, Chairperson of Transfusion Medicine Department. She believes that from this day on all healthy people will come forward to donate blood to increase blood donation in Bangladesh.



From ISBT Central Office

Mojgan Shayegan
Iranian Blood Transfusion Organization
Research Center,
Tehran, Iran

Stem cell donors honoured on World Blood Donor Day in Tehran

On June 24 of this year, in Tehran, Iran, World Blood Donor Day honoured 8 members of the Iranian Stem Cell Donor Registry (ISCDR). These donors had donated their stem cells to 8 different patients in need of haematopoietic stem cell transplantation (HSCT). The ISCDR (Iranian Stem Cell Donor Registry) is a national centre for recruiting, training, registering and maintaining of voluntary donors of HSC. All donors who are willing to donate their bone marrow or peripheral stem cells are able to become a member of ISCDR.

The ISCDR centre was established on February 2009 by the Iranian Blood Transfusion Organization (IBTO). However, donor recruitment officially started on June 15 2010 (World Blood Donor Day). IBTO is a non-profit organization, affiliated with the Ministry of Health and Medical Education and is responsible for collection, processing, testing and distribution of blood and blood products in Iran. Therefore, ISCDR was established according to the regulations of the IBTO for donor recruitment, preparation of blood products and to train blood donors to donate HSC to unrelated patients. ISCDR was named the 'Sepas Centre', which means 'Thank you' in Farsi language.

How ISCDR does work?
Joining the ISCDR is voluntary and free of charge. After receiving the initial application form, the ISCDR staff will contact the volunteers to arrange an appointment for registration. An ISCDR consultant physician will provide further information about HCS donation to ensure the volunteers are fully informed about the whole donation process. Thereafter, the volunteers are asked to sign a consent form. Then, a physical exam (blood pressure and pulse) is performed and 2x5ml blood samples will be collected. Blood samples are then send to the IBTO Immunogenetics Lab for HLA typing by molecular methods (HLA-A, HLA-B, HLA-DR) and the results are processed anonymously.

If a match is found, the donor is contacted for a second appointment for confirmatory testing to ensure HLA-matching. If the donor and recipient are a HLA-match at the 10/10 locus, the donor is introduced to the hospital collection centres to proceed with the HSC collection process. Currently, ISCDR has nearly 3500 volunteer members in total, of which 8 were introduced to two collection/transplantation centres. In conclusion, the ISCDR is focused on improving HSC donor numbers.

Frederik Banch Clausen
Copenhagen University Hospital,
Copenhagen, Denmark

Conference Report of the 2nd Cell-Free DNA Meeting in Copenhagen

The rapid growing field of cell-free DNA testing, and especially non-invasive prenatal testing (NIPT) of cell-free fetal DNA, is important for several medical areas, including Clinical Immunology and Prenatal Diagnosis. The objective of the cfDNA2015 meeting was to present the current and future clinical applications of cell-free DNA across different medical areas. There were 18 presentations from 17 invited speakers plus 6 oral presentations from the audience. There were around 20 posters from the attendees, of which one was selected by a poster committee to win the poster prize. 6 people received a travel grant. The meeting was attended by 210 people from 26 different countries.

In the introductory session, Dr. Morten Hanefeld Dziegiel showed how early non-invasive typing of fetal Kel status had allowed for treatment with plasma exchange and IVIg, resulting in a healthy born child. Prof. Martin Olsson followed with an overview of new findings and challenges in molecular blood grouping. And Prof. Ellen van der Schoot presented an overview of non-invasive typing of fetal antigens. In the next sessions, fetal RhD genotyping was presented by Prof. Tobias Legler, Dr. Kirstin Finning, Dr. Eleonor Tiblad, and Prof. Ossie Geifman-Holtzman. After that, a session on biology and immunology included talks on pre-eclampsia, blood cell genetics, and microchimerism. Prof. Dennis Lo then presented his data and latest progress on NIPT.

On the second day, Prof. Lyn Chitty opened the sessions on NIPT for aneuploidies and monogenic disorders. The main sponsor, Illumina, then presented their new technologies. Following that, Dr. David Scott presented the powerful technique of genome editing. After that, Prof. Dennis Lo presented new data on plasma DNA sequencing in cancer and autoimmune disease. Lastly, 6 selected oral presentations from the audience concluded the meeting.

In addition to the support from ISBT, the meeting was supported by The Danish Societies of Clinical Immunology, Fetal Medicine, and Medical Genetics. The main sponsor was Illumina; gold sponsors were BGI and Qiagen; silver sponsors were Ariosa, Premaitha Health, and Sequenom.

The meeting was well-attended and the atmosphere was great. There was a highly positive feedback from the attendees regarding the programme and the overall arrangement. We hope the meeting was educational.

Please visit the website, www.cfDNA2015.eu, for further information, a photo gallery, and speakers' presentations.

We look forward to seeing you again in 2017 in Copenhagen for the cfDNA2017 Meeting.

James T. Perkins
NorthShore University
HealthSystem
Evanston, USA

An ISBT-funded Immunohaematology Workshop in New Delhi, India

The Indian Immunohematology Initiative (III) recently (April 20-26) completed its 5th "wet-bench" workshop on immunohaematology funded by an ISBT Academy grant. The III is a non-profit, USA-based group of 4 transfusion medicine professionals: Martha Rae Combs, Janis Hamilton, Susan Johnson and myself, dedicated to teaching Immunohaematology in India and elsewhere in South Asia. The workshop had 15 participants and was led by Martha Rae Combs and myself. Over 10 years the III has conducted 14 of such workshops in India with 198 participants including 118 physicians and 80 individuals in technical roles.

Typically pre-transfusion testing in India includes recipient and donor ABO & Rh grouping and a major-side, IAT cross-match. However, substandard methods are common such as ABO cell typing only (no serum type) for donors and/or recipients, or failure to use Coombs control cells in the IAT cross-match. Better-funded institutions may use semi-automated or automated IAT methods, but identification of detected antibodies is limited by lack of access to RBC panels and uncommon phenotype RBCs, lack of non-routine reagents (PEG, eluting agents, enzymes, sulfhydryl-reducing agents, ZZAP), and lack of skills and training in methods such as auto-adsorption. Even when blood group antibodies are identified, provision of compatible blood is a problem because antigen typing reagents are unavailable, and previously-typed donor rosters do not exist.

The III teaching programme is based on the following:

- Hands-on or "wet-bench" training is the most effective teaching method for blood group antibody detection and identification. Lectures work best in association with hands-on teaching.
- Tube agglutination testing offers the best combination of availability, accuracy, and expense for resource-limited blood banks. In addition, advanced IH testing requires proficiency with tube methods.
- Case-based training works best to establish both theoretical and practical understanding.

Initial workshops were associated with local professional meetings, but this limited them to 2 days, necessitated site-to-site equipment transport, and depended on meeting organizer priorities. The 'meeting-based' model evolved into creation of two fixed training sites at blood banks in New Delhi and Bangalore, each with a set of equipment (serologic centrifuges, heating blocks, etc.) and a commitment to an annual event. Workshops have included 12-25 participants from 2 faculties, but we've found out that a group of 15 participants works well in a typical classroom size, equipment, and faculty-student ratio.

Based on our experiences we have evolved a standard 5-day course of laboratory exercises followed by a 1-day case-studies seminar open to local blood bank professionals. Exercises begin with preparing a 3-5% RBC suspension and grading tube agglutination reaction, followed by 3 antibody identification cases of increasing complexity, an ABO discrepancy case, and culminating in evaluation of a warm-reactive autoantibody including performance of a DAT, antibody elution and auto-adsorption. Short lecture presentations were accompanied by exercises and supplement case workbooks. Teaching materials are also available on our website (www.indianinitiative.org), where participants can consult us if needed.

Student evaluations have been enthusiastic, averaging 4.9 on a 1-5 scale. A recent on-line survey of past participants corroborated these high ratings. Respondents indicated that the training had a positive impact on the quality of testing in their laboratories as well as on their personal careers.

The support provided by the ISBT Academy grant is supplemented by in-kind donation of reagent RBCs and sera by the IMMUCOR Company, donation of faculty members' time by their respective institutions, and donation of the author's travel funds by his institution.

We believe that the III model can be extended to other countries and welcome inquiries.

AFRICA

Lucy Mary Marowa
National Blood Service Zimbabwe
Harare, Zimbabwe

TREC Workshop on strengthening research capacity in blood services in Africa

Background
In September 2008, the Wellcome Trust sponsored an initial workshop of African blood services directors on Blood Transfusion Research in, Kenya. The workshop was organised to define and prioritise research to improve blood safety, adequacy and equity in sub-Saharan Africa (SSA).
In February 2015, the 2008 workshop was reviewed at a 2-day conference held at the Farm Inn, Pretoria South Africa. The objectives were to:

- Establish the progress made in blood transfusion research since the initial meeting of the year 2008.
- Determine whether the previously identified research agenda is still relevant.
- Find out how to use lessons learnt to significantly improve blood transfusion research from then onwards.

Summary of outcomes
The status of published research activities relating to blood transfusion was shared. This highlighted that there have been 350 publications, mainly on transfusion transmitted infections (TTIs, ~50%). However, only few publications were published on the other topics that were identified in 2008. It was also noted that a significant portion of the manuscripts were published in journals without significant impact factors. The workshop critiqued the previous 5 research themes and concluded that these were still relevant, although with some modification as described below.

Biological Safety
The previous focus was on TTI reduction, which is now almost irrelevant since most blood services have implemented adequate testing regimes. The new focus is on comparison of test systems as well as to Hepatitis B, malaria and bacterial contamination. In addition, five new research themes were added.

Blood donors and blood donation
The previous focus remains relevant, though it is imperative to understand and standardise the definition of various donor types. This will enable comparisons and develop appropriate donor recruitment and retention strategies. It was noted that social media has the potential to revolutionise donor recruitment and retention.

Appropriate clinical use
The previous theme was focussed on the lack of haemovigilance systems in SSA. In this region, best practices in establishing and maintaining haemovigilance systems are absent and very little research is executed. Therefore, five research questions were added.

Management of the supply chain
To date, there has been very little progress on assisting nations in order to establish their annual/periodic requirements and relate this to blood (component) orders made by clinicians. This is exacerbated by lack of health economists who are able to guide on expenditure of blood services so that strategies for cost effectiveness can be properly directed. As a result, this research area remains relevant, with five new questions included.

BTS models and sustainability
The current review revealed that at the moment it is very difficult to compare blood services due to different models, definitions etc. Therefore, focus should be put on standardisation, whilst strengthening the various operational models available, instead of centralisation or implantation of other structures. 5 research questions were added.

Conclusions
It was agreed that:

- There is still more capacity needed for building as well as for primary research in SSA.
- Funding strategies need to be implemented and targeted at relevant funders.
- Blood services need to collaborate with relevant academic institutions as well as promote in-service research activities in such manner that their staff can directly benefit.
- Blood services must find ways of implementing research results and incorporate these into their activities, as well as policies.

Willy Kwenda

Bridon M'baya
ISBT Regional Director

Stephen Njolomole
Malawi Blood Transfusion Service
Blantyre, Malawi, Africa

Successes and Challenges of Balaka District Hospital Transfusion Committee, Malawi

In 1975, Resolution WHA 28.72 of the 28th World Health Assembly urged member states to promote development of national blood services based on voluntary non-remunerated blood donation. The Malawi government established the Malawi Blood Transfusion Service (MBTS) with funding from the European Union in 2003. The MBTS started its operations in 2004. The World Health Organization strategy for blood safety recommends the establishment of Hospital Transfusion Committees (HTCs) in order to monitor and audit implementation of the policy and guidelines at hospital level. The first HTC to be established in Malawi was the Queen Elizabeth Central Hospital (QECH), and was established in 2004.

One of the successes registered by QECH-HTC was the development of guidelines for clinical use of blood and products and produced an advanced copy of the guidelines. The guidelines were approved by the Malawi Government in 2012 and are currently implemented. There are currently 17 HTCs in Malawi which comprises of 4 Central, 3 Mission and 10 District Hospital Transfusion Committees. The committees are being established with President's Emergency Plan for AIDS Relief (PEPFAR) funded project through Centres of Disease and Control (CDC).

The Balaka Hospital Transfusion Committee
Balaka HTC is one of the district HTCs and was established in January, 2012 to implement the Malawi National Blood Policy and Guidelines on the clinical use of blood and blood products and promotes the highest possible standard of care for patients receiving blood/blood components at the Hospital. The committee reports to the District Health Management Team (DHMT).

The objectives of the committee are:

- To monitor safety, adequacy and reliability of the supply of blood, blood products, intravenous replacement fluids and drugs essential for safe transfusion practice.
- To monitor the usage of blood and blood products.
- To establish, monitor and regularly review systems and procedures for effective clinical transfusion practice, including those for ordering, collection and administration of blood and blood products.
- To promote the training of clinical, laboratory and support staff involved in the transfusion process.
- To review all incidents of severe adverse reactions or errors associated with transfusion and identify any corrective action required.
- To promote the safety of health personnel working with blood.
- To work hand in hand with the Malawi Blood Transfusion Service in motivating, mobilising, recruiting and retaining regular blood donors.

Membership
The committee is a multidisciplinary committee with representation from all departments involved in providing or prescribing blood/blood products. These are: Clinical and Nursing department, Laboratory, Male, Female, Labour and Paediatric Wards, Administration, MBTS representative.

Successes:
Over the past 3 years, with strong support from the DHMT, some of the successes are:

- MBTS provided the following equipment which greatly improved blood cold chain e.g Refrigerator, Ward cold chain boxes and grouping tiles.
- The MBTS used to face challenges in mobilizing and recruiting voluntary blood donors in Balaka district. After the establishment of the Balaka HTC, the MBTS-BDH joint blood donation campaigns have led to increase in number of blood units collected.
- The HTC developed blood transfusion patient monitoring tools, blood compatibility stickers, blood transfusion reaction management and reporting guidelines and are now in use. These tools were adapted from the Malawi Clinical use of blood and blood products guidelines.
- The HTC facilitated one-day training for 39 clinicians and nurses in transfusion reactions.
- The committee is a role model of district hospital HTCs as evidenced by the MBTS partners from the National Health Service Blood and Transplant (NHSBT) United Kingdom's visit to Balaka HTC committee to learn and appreciate the success story of the committee; the Balaka HTC members felt that it was an honour to the committee.
- The Balaka District Hospital successfully participates in the National Quality Assurance System administered by the MBTS.
- The HTC advocated for vaccination of all hospital staff involved in blood transfusion processes against Hepatitis B and are now all vaccinated.

Challenges:
The Balaka HTC faces challenges which hinder the effective delivery of blood transfusion processes at the hospital. These are:

- Unpunctuality of members during the meetings
- Absenteeism of some office bearers
- Some school Headmasters show resistance to blood collection activities.
- In absence of a blood donation campaigns, blood supply from MBTS fall below 80% of the BDH blood requirements.
- Some members expect to receive sitting allowances.

Conclusion:
Active HTCs with committed members and strong support by the DHMT are key to the implementation the Malawi National Blood Policy and Guidelines on the clinical use of blood and blood products and promote the highest possible standard of care for patients receiving blood/blood components at the Hospital.

EUROPE

Mahmut Bayık
President of Turkish Blood Foundation
Istanbul, Turkey

Anatolian Blood Days; an international workshop by Turkish Blood Foundation

The Turkish Blood Foundation (TBF) initiated the organisation of annual international workshops in 2012 called 'Anatolian Blood Days'. The aim is to share experiences and challenges that are common to many Transfusion organisations but are rarely discussed at national or international conferences. Anatolian Blood Days aims to identify and discuss the "untouched" topics and help to identify ways to move forward.

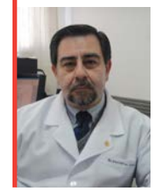
The third workshop was held on November 30 – December 2, 2014 and addressed the socio-economic conditions of blood transfusion staff compared with those of other medical disciplines. Also, the employment conditions in relation to the morale, job satisfaction of staff on the effectiveness and efficiency of the transfusion service was discussed. A central theme was the inconsistency in salaries and conditions between hospitals, regions and countries of each staff category. When transfusion services were compared with other specialized departments and organisations, lower salaries had an adverse effect on staff's morale and performance.

Survey among the participants
Before the meeting, the organisers had carried out a survey among the invited participants to obtain information about employment conditions and staff morale in transfusion services in their countries. 23 countries were represented by a total of 51 participants. A representative of each country presented their staff situation and identified the challenges. A summary of the main themes was constructed which were the basis for topics and tasks for each of the working groups. Each group was asked to concentrate on one action point actions which could lead to salary improvements and employment conditions.

Conclusions of the meeting
The conclusions of the working groups were quite variable and the following consensus statements were agreed upon:

1. Transfusion is critical for any health service.
2. The resources allocated to transfusion should be sufficient in order to ensure that it meets the requirements.
3. An effective transfusion service depends on the quality and morale of its staff.
4. Morale and performance of staff is influenced by the quality of their working environment, management and the value perception of their work.
5. The public image of the service is exceedingly important.
6. Adequate financial rewards and conditions such as job security, training and promotion prospects, pensions, and paid vacation allowance are important.
7. Good management and leadership are critical which requires knowledge and understanding of transfusion service.
8. A manager must set clear objectives and must ensure that good and inadequate staff performance is recognised and effectively dealed with.
9. Managers should have the right and duty to select their staff and it transfusion should be acknowledged as a specialisation.
10. Blood transfusion must be more business-like: Services must obtain and use essential data to manage effectively and to ask for additional resources if needed.
11. Transfusion services should not be profit driven, since human blood is donated by people who generally do not wish this to be used for profits.

The next 'Anatolian Blood Days' will be organized in December 13-15; 2015 in Antalya, Turkey and the topic will be "cost calculation of blood components and reimbursement systems".



Oscar Torres
Asociación Argentina de Hemoterapia e Immunohema-tología Buenos Aires, Argentina

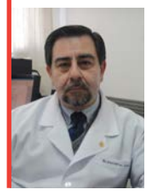
SOUTHERN AMERICAS

Teaching Transfusion Medicine at the Favaloro University in Argentina

The Favaloro University Medicine School was created in 1992 by Dr. René Favaloro, whose legacy was a high-quality medical curriculum for the teaching of undergraduates. He promoted professionalism at the highest academic, scientific and technical level, taking care of humane and ethical issues as well. In this manner, the responsibility of Medical Education is searching for the best standards in medical teaching, which is executed following evaluation of the study plans in the first year. The different specialties including Basic sciences, clinical and surgical medicine are rotated, within hospital practices, rural medicine, and during the more advanced stages of a career. It is important to teach students the basics of a clinical scientific investigation method and ethics and teaching them to develop a critical attitude. It is also important to include teaching Transfusion Medicine, which is currently not included in any medical school programme.

Transfusion Medicine was included as part of the curriculum in 2008, under coordination of Dr. Horacio Salamone and since 2012 Dr. Gloria Góngora Falero is the main professor. It is very important for students to become aware that they do not have enough knowledge about transfusion therapy and blood donation. The programme has a workload of 28 hours (both theoretical and practice), with the aim of discussing clinical patient cases. The Transfusion Medicine programme is run by 3 doctors and a biologist and includes the following topics: importance of altruistic and regular blood donation, to ensure sufficient and safe blood products. The course is focused on the central topics: transfusion therapy, benefits and potential adverse effects, appropriate and rational use of blood and its products according to the best scientific evidence available in clinical guidelines, autologous transfusion alternatives and concepts and main indications of therapeutic apheresis. In conclusion, this Transfusion Medicine programme contributes to good general practice, knowledge and resources for good management of patients.

SOUTHERN AMERICAS



Oscar Torres
Asociación Argentina de Hemoterapia e Immunohematología Buenos Aires, Argentina

Accreditation Programme in Argentina

With great pride, the Argentinean Association of Haemotherapy and Immunohaematology (AAHI), an ISBT Institutional Member, wants to announce very important news for the present and future of our institution. Throughout its existence, our association has always sought to improve the transfusion practices within the country through its many activities, which main objective was to achieve quality in our specialty.

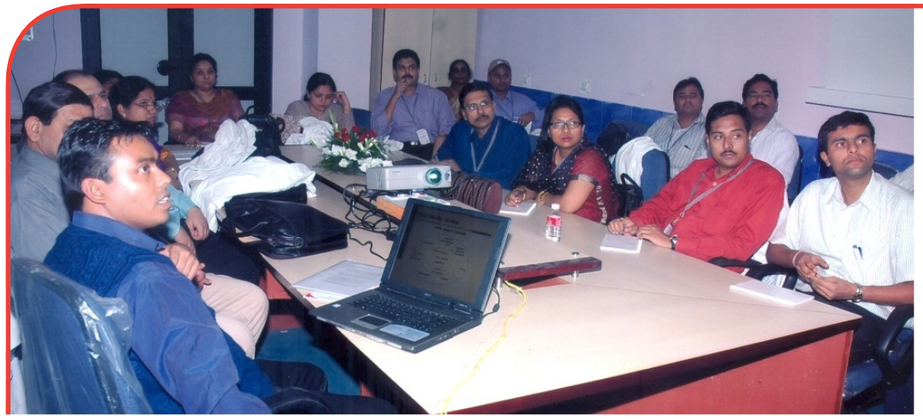
Accreditation
We could not continue our Accreditation Programme Service without certifying the quality of their activities. Therefore, besides creating a Quality System Committee, Dr. Alejandro Chiera was appointed as head of the Quality Programme for ISO Certification. After two years of hard work, the AAHI achieved ISO 9001: 2008 certification, given by the international certification body and classification society which main expertise is technical assessment, research, advisory, and risk management: Det Norske Veritas (DNV · GL) and by the El Organismo Argentino de Acreditación (OAA) of Argentina or certificates of the Dutch Accreditation Council (RvA).

Future directions
Since we have taken the first important step and to improve continuously, we believe that this objective should be followed by every AAHI member, obtaining professional certification and re-certification, publishing in our magazine, and crediting their services. To this end we are committed to continue working on development of procedures, or providing necessary tools and social benefits for the highest standards of professional quality. We are convinced that this is the only way for Transfusion Medicine to obtain the recognition it deserves and to contribute to a good health system, which in our case includes blood donors and patients. This is just the beginning, and as we all know, a quality management system requires commitment and daily efforts from each of the Board Members.

Rajendra Chaudhary
Professor & Head Dept of Transfusion Medicine
Secretary Indian Society of Transfusion Medicine
SGPGIMS, Lucknow, India

Dheeraj Khetan
Assistant Professor
Dept of Transfusion Medicine
SGPGIMS, Lucknow, India

Immunohaematology Developments in India



Over the last few decades, Immunohaematology has evolved in India from a small topic in Pathology to a separate subject. Pioneers like Drs. Bhende and Bhatia were the first to recognize the importance of the field of immunohaematology. Dr Bhende observed an unusual reaction while cross-matching blood from two patients in 1951. This led to the discovery of the Bombay phenotype and soon a Blood Group Reference Centre (now National Institute of Immunohematology, NIIH) was established in Mumbai under the Indian Council for Medical Research. Discovery of the Indian Blood group and A1 lectin are other important research contributions from this institute.

The second most important milestone in the evolution of immunohaematology was the approval of a post-graduate Degree in Immunohematology and Blood Transfusion from the Sanjay Gandhi Postgraduate institute of Medical Sciences, Lucknow in 1990. This along with short term training programmes for staff working in various blood centres initiated by the National AIDS Control Organization (NACO), the Government of India has helped to improve standards of immunohaematological practices. This includes hands-on training in immunohaematological lab techniques such as forward and reverse grouping, direct & indirect Coomb's test, antibody screening and identification, resolution of blood group discrepancies and incompatible cross-matches and quality issues. Since the inception of this programme, our department has trained more than 1200 blood bank staff and similar training has been given across the country in 16 other centres. In addition, a series of wet-bench workshops have also been conducted by Jim Perkins (USA) through his Indian Immunohaematology Initiative.

Red blood cell antigens

We now have important information regarding red cell antigen frequencies, mostly from the Northern part of India in which the prevalence of red cell antigens is as follows: D- 93.6, C- 87, c- 58, E- 20, e- 98, K- 3.5, k- 99.97, Fya - 87.4, Fyb - 57.6, Jka - 81.5, Jkb - 67.4. There is considerable ethnic diversity within the country and this data may not represent all regions. The reported prevalence of alloimmunization in transfused patients in India is comparatively low varying from 0.49 to 5.64% .This low rate of alloimmunization may be due to high phenotypic similarity between blood donors and the patients. The work for establishment of rare donor registry required for transfusion management of such patients has been initiated at NIIH, Mumbai.

Techniques for Blood Group Serology

Blood group serology is traditionally being performed using the tube technique as the gold standard. However, advanced techniques like column agglutination methods, solid phase red cell adherence assay and magnetized erythrocyte technology have been introduced and we are now solving complex antigen/antibody problems. The use of blood type and screen policies is currently limited due to lack of validated laboratory information systems and the absence of an India-specific antibody screening panel which is required for detection of clinically significant antibodies such as Anti- In (b–) & Mi(a).

Overall, India has few advanced well-equipped transfusion centres which support patient transfusion requirements of stem cell transplants across the ABO barrier, ABO incompatible renal and liver transplants, and extended phenotype match blood for regular transfusion therapy. On the other hand, there are many centres struggling with limited facilities, not able to perform even the basic tests. Therefore, considerable effort is still needed for training and education programmes to advance the field of immunohaematology.

2015

18 - 21 October, 2015

HAA 2015
Adelaide, Australia
www.haa2015.com

24 - 27 October, 2015

AABB Annual Meeting
Anaheim, USA
www.aabb.org/annual-meeting/Pages/default.aspx

November 05 - 07, 2015

2nd Congress on Controversies in Thrombosis and Hemostasis (CiTH)
Barcelona, Spain
http://www.congressmed.com/cith/

06 - 07 November, 2015

1st International Hematology Club Meeting: a focus on lymphoid diseases (IHC)
Paris, France
www.comtecmed.com/ihc/2015/Default.aspx

Nov 14 - 16, 2015

26th Regional congress of the ISBT, Indonesia
Nusa Dua, Bali, Indonesia
www.isbtweb.org/indonesia

20 - 23 November, 2015

12th Annual meeting of the ATMF
Caïro, Egypt
www.atmfweb.org

Dec 01 - 02, 2015

IPFA Workshop on Improving Access to Plasma and Plasma Products
Stellenbosch, South Africa
http://www.ipfa.nl/events/ipfa-workshop-on-improving-access-to-plasma-and-plasma-products-in-the-southern-african-region

December 4-6

TRANSMEDCON 2015
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2016

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34th International Congress of the ISBT
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