TRANSFUSION TODAY

Transfusion Today | Number 109, December 2016

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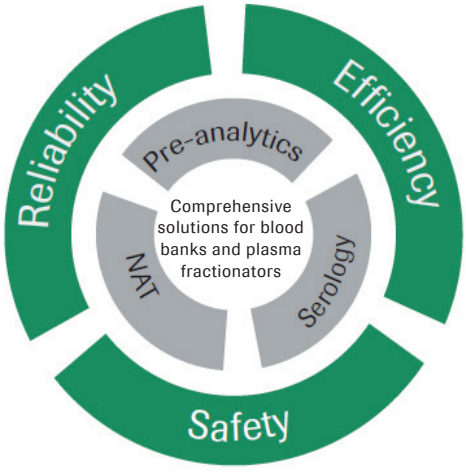

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Judith Chapman

Editorial

During the recent ISBT congress in Dubai four sessions organized by and directed towards Transfusion Practitioners were included. This was the first time Transfusion Practitioners had their own sessions at an ISBT congress. The organising team comprised of 6 Transfusion Practitioners and they did a great job in putting together a diverse programme including managing major haemorrhage, how to make data fun and work for you and strategies for implementing pre operative anaemia assessment. Four members of the group have written articles for the focus section some of which follow on from the sessions in Dubai. A Transfusion Practitioner forum has been launched to make networking easier and for people in this role to post questions and share experiences and practice. Transfusion practitioners play a vital role in delivering safe transfusion care to patients and it is important that this work is recognized.

The next ISBT congress will be held in Copenhagen and this issue of Transfusion Today includes a plan of the scientific programme. The programme will include new scientific topics and well over half of the speakers in Copenhagen will be first timers at an ISBT congress. Further information is available in the centre spread of this issue. An ISBT congress offers extremely good value for the cost of the registration fee so please come and join us.

Linley Bielby
Australian Red Cross Blood Service

The role of the Transfusion Practitioner

Transfusion practitioners (TP) include those known as transfusion nurses, transfusion safety officers, haemovigilance officers or patient blood management (PBM) nurses/officers.

Transfusion is a multifaceted process involving many disciplines to deliver safe care to patients. With increased attention on PBM the emphasis of transfusion practice has now moved to be more patient focussed. In countries where the TP role is established the TP holds a key role within the transfusion team, and is often seen as the vital link between the different areas and teams involved such as the laboratory, wards, and surgery and clinic areas. Attributes of the TP such as clinical expertise/experience, sound technical knowledge, excellent communication skills, energy, confidence and persistence are important for the role to function successfully.

The TP has a fundamental role in developing tools and resources to support PBM, education, governance and practice improvement. The role is multifaceted using education to increase clinical and patient awareness of transfusion issues, and enhancing practical knowledge of blood products or appropriate alternatives. This knowledge leads to improved clinical decision making.

A key aspect of the role is to improve practice and the use of audit/data collection is a key enabler. For more information about the TP role and how data may be utilised please refer to the data article in this issue.

Being an agent for change is a large part of the role and the TP needs a sound knowledge of how change can be implemented within the bounds of an organisation's structure. The uptake of change can often be slow and requires constant support and resilience to be embedded.

Governance – a key part is to coordinate blood management committees and follow-up on actions. Often they are the key collector of and the reporter of key performance indicators (KPIs), such as blood component usage and waste, adverse event numbers and patient outcomes.

The TP is a central source of information and an expert resource to organisations to assist in aligning practice to guidelines and standards, whether they are local, national or international.

Often involved in identifying areas for improvement, including undertaking risk assessments and in the current economic environment, where organisations are often looking for ways to reduce costs and risk without effecting safety or the level of patient care, the TP can help identify these areas through audit activities.

TPs face many similar issues no matter where they work. Collaboration and sharing through the TP forum could be a perfect way to reduce duplication of effort, and may even open the opportunity for benchmarking.

ISBT has recognised the emerging TP role in the field of transfusion by establishing the TP forum. The TP Forum Steering Committee encourages those working in the role, and those interested in the role or developing the role to join the forum.

Sharing our expertise and experiences will help the TP forum grow and provide a platform for collaboration.

For further information please contact:
communication@isbtweb.org

Rachel Moss
Transfusion Practitioner, UK

The Transfusion Practitioner and patient blood management

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.

The Transfusion Practitioner (TP) has a critical role to play in developing a PBM culture within healthcare establishments. PBM requires a multi-disciplinary approach and a primary role of the TP is to promote safe and appropriate use of blood or appropriate alternatives to wide variety of clinical colleagues both within and outside of the laboratory. They have a multifaceted role to play in engaging with both scientific, laboratory and clinical colleagues. Very often the TP is the conduit for information pulling together available resources both financial and personnel, reviewing activities undertaken by transfusion colleagues in other centres, collecting audit data and evaluating how these activities might be beneficial within their own healthcare establishment.

PBM covers many aspects of clinical care and for many centres it is easier to focus on key aspects of PBM, rather than trying to implement every element. This allows greater control on both implementation process and monitoring process to demonstrate effectiveness. There are many examples of PBM implementation within the literature, many of these associated with the surgical setting. These include managing pre-operative anaemia and optimising haemoglobin before surgery; the use of intra-operative cell salvage; use of Tranexamic Acid prior to and/ or during surgery and the implementation of post-operative blood salvage devices. In medical patients there is a great emphasis on managing iron deficiency anaemia and ensuring the cause of anaemia is managed through the use of suitable iron replacement therapies where appropriate rather than using blood transfusion.

An example of a PBM strategy that the TP can easily lead is a review of iatrogenic or hospital acquired anaemia. The TP could explore and collect data on the number of blood samples taken, the volume of each sample, and the rational for these test. This data could lead to the development and implementation an assessment tool to identify those patients who are at risk from multiple testing over a short period of time (such as critical care patients). This process is an example of a relatively inexpensive and straight forward project. Offering solutions to the problem in conjunction with the clinicians can be a way of introducing the principles of PBM without the need for large service reviews or change management strategies.

There is a need for all those involved in the patient's care to understand the principles of PBM so that any initiatives or transfusion avoidance plans implemented remain in place throughout the patient's episode of care. The TP can play a critical in this by considering the patients journey, and looking at the steps in that journey where PBM is relevant.

If you would like to join the TP Forum or obtain further information please contact: communication@isbtweb.org

Linley Bielby
Blood Matters Program Manager,
West Melbourne, Victoria Australia

What is the ISBT Transfusion Practitioner (TP) Forum?

Transfusion practitioners play a key role in driving and influencing clinical blood management activities, including PBM initiatives. The roles and activities they undertake are diverse, and they may be known as transfusion nurses, transfusion safety officers, haemovigilance officers or patient blood management (PBM) practitioners. Transfusion practitioners play an integral role in the blood management team, with the common aim of supporting safe and appropriate care for patients.

The Transfusion Practitioner Forum grew from sessions held at the 2015 London congress. A very successful transfusion practitioner breakfast meeting was held where delegates supported the need for an ongoing forum. The London Academy day programme also included presentations from three transfusion practitioners, on how the transfusion practitioner role is integral to improving patient safety.

From these sessions, ISBT and the ISBT Clinical Transfusion Working Party have established the Transfusion Practitioner Forum and Steering Committee.
The role of the Transfusion Practitioner Forum is to:

- Promote the role and value of transfusion practitioners within international PBM initiatives
- Provide transfusion practitioners with tools and evidence to implement PBM initiatives
- Provide a platform for international transfusion practitioner collaboration
- Empower transfusion practitioners with resources and information to support them in their workplace
- Support countries who do not have transfusion practitioners to establish networks
- Support the ISBT Congress Annual Meetings with planning transfusion practitioner sessions based on current international demand and need.

The current steering committee has representation from the United Kingdom, Netherlands, Denmark and Australia. The Chairperson is Linley Bielby (Australia), Vice-chair Rachel Moss (UK), and the members include Aman Dhesi (UK), Rozemarijn Deelen and Judith Lie (Netherlands), and Jens Svanholt Seeberg (Denmark).

The first activity of the Transfusion Practitioner Forum Steering Committee was to establish a series of sessions for the 2016 Dubai congress.
These sessions focused on the transfusion practitioner role in:

- patient safety initiatives
- strategies to enhance the appropriate use of blood components
- data collection and analysis (this session was presented through an interactive workshop exploring ‘how to make data work for you’)

The Dubai sessions were very successful. There was enthusiastic involvement and collaboration by those attending, and great interest in the role of a transfusion practitioner, also from delegates from developing countries. The steering committee is currently using suggestions from the Dubai congress to plan future activities, including:

- expanding information and resources for transfusion practitioners on the ISBT website
- undertaking a survey to gain a broader understanding of the roles in place internationally, and the need to develop and support these roles
- preparing sessions for the upcoming congresses to be held in Copenhagen and Toronto

A transfusion practitioner networking afternoon tea was included after the success of the session in London.
This was a perfect opportunity for transfusion practitioners at

the congress, and those interested in developing the role to meet, network, and discuss common interests within the field of international transfusion. It is hoped that the links made will continue long after the Dubai congress. More information about this session, and other sessions held at the congress, is included in this issue.

In summary, a TP Forum has been established for transfusion practitioners, and those interested in expanding or establishing these roles, to get together, to share and learn in this emerging practice area.

Also, an online discussion forum has now been established by ISBT, to continue and broaden networking within the group. This provides transfusion practitioner members a platform to discuss and share information. We are confident that the TP forum will grow and develop, just like the illustration of the growing tree on the front cover.

If you would like to join the TP Forum or obtain further information please contact: communication@isbtweb.org

Rachel Moss
Transfusion Practitioner, UK

How the Transfusion Practitioner can use data to effect change

Despite blood transfusion being a standard treatment for many patients who need it, understanding where the blood goes, and how it is used is often poorly understood. Similarly when establishing a transfusion avoidance strategy as part of patient blood management (PBM), it is important to understand the reasons for blood use to be able to identify if there is a need to reduce its usage.

The need for accurate data whether on blood usage, or other key factors in healthcare management such as the number of patients treated by a service, or the outcomes of a certain therapy is now commonplace. When looking to implement a change programme it is important to establish your baseline and data collection is a key part of that.

The Transfusion Practitioner (TP) has a crucial role to play in using data to implement PBM strategies, yet many may not get actively involved in managing data. At the 2016 ISBT congress in Dubai, the Transfusion Practitioner Forum ran a workshop entitled "Data is Fun". The aims of the session included: -

- Recognising that data is vital and can be fun.
- Showing that data is important to; find out the current situation, express the need for change, to help make change happen and measure and report on performance.
- Realising that data does not have to be costly. It can be a pen and paper exercise right through to using automated systems.
- Acknowledging that data can be collected from everywhere and it does not have to be 'big data' to make a difference.

The workshop split the overall group into small groups, and each group worked through an example to establish an anaemia assessment clinic. The exercise was based on the PDSA (Plan Do Study Act) cycle. Each group looked at how they would collect the data required, process and analyse it. They then looked at how they would finally present the data to the relevant colleagues, whether they are clinical, managerial or financial. The participants were shown and given a number of examples how this could be done, such as using graphs, reports, and use of infographic one page sheets or more detail business cases.

Participants were encouraged to discuss how they might take some of the points discussed back to their own work environments, and share where they felt there might be barriers within the group, and where possible solutions could be considered.

The workshop emphasised that while data collection can be complex it can be made simple by looking at small pieces at a time to build a picture. In practice many TPs do not have the resources to collect large amounts of data however they can review a small element of the patient's episode of care related to blood transfusion, collecting and documenting information manually (such as a pre-operative haemoglobin level) and use that data as a baseline for implementing a PBM recommendation such optimising a patient's haemoglobin before surgery and considering alternatives to transfusion to treat the anaemia such as using iron therapies. A list of tools and resources were also given to the participants.
The use of clinical data to affect change can be an element of the TP role to improve patient care and promote PBM.

Further information can be found on the ISBT PBM website.

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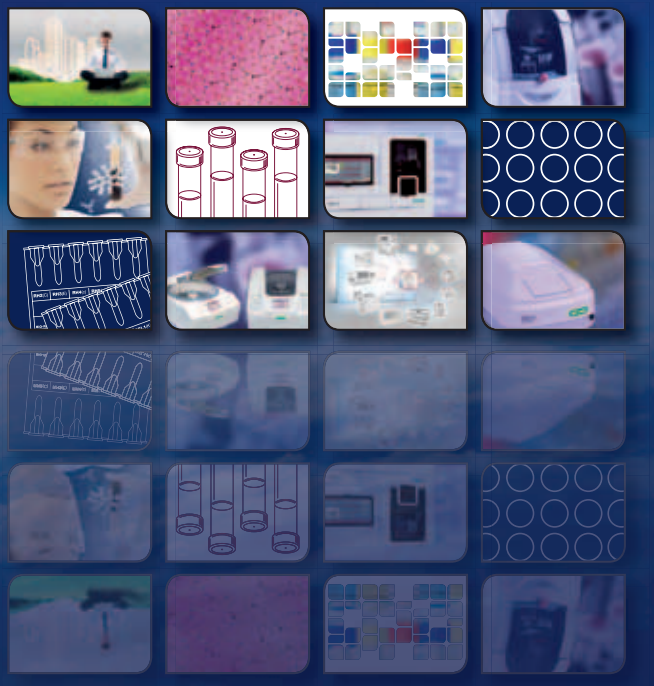

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Transfusion Practitioners (TP) networking session in Dubai

Rozemarijn Deelen
Transfusion Practitioner,
The Netherlands

The aim: to leave the Dubai congress knowing someone you didn't know before.

The first successful TP networking session was held at the 2015 London ISBT congress.
Here there were tables dedicated to a specific transfusion topic (i.e. haemovigilance, PBM etc.) and a TP with expert knowledge led the discussion. Delegates could move from one table to another to explore the different topics.

This year the TP Forum Steering Committee chose a different approach, moving from a breakfast meeting to an afternoon tea. The 1.5 hour session was set up as a speed meeting session, where delegates sat in a row opposite of each other, and every eight minutes one row moved. This allowed for multiple one-to-one introductions and conversations to occur.

The speed meeting networking session was facilitated by Rachel Moss (Vice-chair TP Forum Steering Committee). Rachel introduced the session and explained the aims, and how it would work. All the delegates were given a sticker to be used as name badge. On this they were asked to write their name, work title or function and something they love (music, cooking etc.). They were also asked to highlight an area of transfusion medicine they were interest in. Delegates were also given a 'networking sheet' where they could record information they learnt from the speed networking. These could be taken away and used to continue networking well beyond the congress.

The common themes discussed throughout the networking included the key role of TP's, transfusion safety officers or haemovigilance officers in various parts of the transfusion chain. A number of delegates were from developing countries with no or little haemovigilance/TP roles and they were keen to learn how they could get started, either at a local level or nationally. Those attending from countries where the TP role is established were keen to learn about moving forward, and how to consolidate the role within their hospitals and nationally. Delegates discussed some common themes including the lack of support from the medical executives/board and how to demonstrate the value of the TP regarding patient safety and the transfusion chain.

At the end of the session delegates were encouraged to provide feedback on the networking session and to note ideas and suggestions for future sessions. We received some fabulous feedback and the session was regarded unanimously as great way to meet and chat.

Feedback included:

- The initiative was great. Hopefully more people will attend the session next time to share more information.
- Lovely session. We should all stay in touch. A great way to improve PBM.
- A social platform for TP's should be created.
- Please repeat the networking session (came with another compliment for the session on big data).
- Could we have a whole day filled with sessions and workshops for TP's?

Some ideas were:

- Implementation and monitoring of an electronic blood tracking system (including pre-transfusion check), the role of the TP during development as the key contact person.
- Implementation of PBM and the key role of the TP. Were do you start?
- A research workshop dedicated to TP's.

These ideas and suggestions will be used to plan future activities for the ISBT congresses in Copenhagen and Toronto. Thank you to all those who attended the networking session, we look forward to continuing our interaction through the online discussion TP forum. If you are interested in joining, please search for the group 'Transfusion Practitioners' on LinkedIn for more information.

Dedicated networking sessions have earned a regular place on the program of future congresses, please come and join us in Copenhagen or Toronto.

If you would like to join the TP Forum or obtain further information please contact: communication@isbtweb.org

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[1] Matteocci A. and Pierelli L.; *VoxSanguinis* (2014) 106, 197. [2] Jungbauer C; ISBT Science Series (2011) 6, 399.

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Ravi Reddy

ISBT has enjoyed another successful year, most notably the very successful 34th international congress which was held in Dubai, and was thus the first ISBT congress in the Middle East region. This afforded many blood bank staff from the region to attend and for many it was the first time they attended an ISBT or other international meeting. We welcomed seven new members on to the ISBT Board of Directors and have already started working on some of the key strategic objectives which we plan to implement in 2017. The ISBT Academy supported a number of educational events at congresses this year and one of the highlights was the joint one day research workshop at the AfSBT meeting in May.

Over the past decades, blood services have made significant strides in ensuring quality assured systems for the collection, processing, testing and distribution of blood. A critical part of the value chain is when blood components leave the blood service and are issued to hospitals for transfusion to patients and in many countries this is the weak link. At the hospital level there is often a lack of a coordinated approach to patient blood management and reporting on adverse events. Blood Services in the UK, Scotland, Australia, New Zealand and a few other countries appointed transfusion specialists or practitioners at hospital level in the mid 2000's and saw varying degrees of reduction in the of use of red cells, likely as a result of more education and monitoring at these hospitals regarding the appropriate use of blood.

The ISBT working party for Clinical Transfusion has recognized the important role of Transfusion Practitioners in ensuring the appropriate and safe use of blood products and have a sub-group for Transfusion Practitioners to network and share their knowledge. This working party has also organized Transfusion Practitioner networking sessions at recent congresses. While it has long been acknowledged that they play a critical role as the interface between clinicians, blood bank personnel and hospital administrators, very few countries especially in the developing world have full time staff performing this role. This issue of Transfusion Today focuses on the role of the Transfusion Practitioner and the involvement of ISBT in promoting global networking among these practitioners. A hot topic over the past few years has been patient blood management and one of the articles will emphasize the important role these individuals play in an effective patient management system. The enthusiastic members of the Clinical Transfusion Working Party would certainly like to see the networks and forums extended to many more countries and I would urge all our members to pass on the information contained in this edition to your colleagues in hospitals or blood banks that may not have access to this information and may want to join.

As we approach the end of 2016 and enter into 2017, I would like to take this opportunity to thank all ISBT members and staff of the management office for your contributions and support this year. Best wishes for the festive season and a Happy New Year.

Ravi Reddy

Welcome to our new members

(September 2016 - December 2016)

Africa

- **SOUTH AFRICA:** Sulaiman Alabsi, Abdullah Algarni, Sahal Jamalallail
- **NIGERIA:** Uche Sylvia, Beauty Echonwere

Americas

- **UNITED STATES:** Alex Ryder, Tom Zimmerman, Yanyun Wu, Michael Spigarelli, Michael Gannett, Beau Robertson, Zaher Otrock, Jonathan Hoiles, Ruchika Goel, Samuel Rose, Hong Yang, Matt Cienkus, Patricia Anderson
- **MEXICO:** Mayra Patricia Tadeo Gómez

Eastern Mediterranean

- **EGYPT:** Tarek Metwally
- **IRAQ:** Alaa Makki Abdul-Razzak Al-Qaraghuli, Huner Omer Tawfeeq
- **KUWAIT:** Sara Simbeye, Shaimaa Baroun
- **OMAN:** Zainab Al Fana Alarimi
- **UNITED ARAB EMIRATES:** Amira Hammouda, Nawal Al Mazrouei

Europe

- **DENMARK:** Matthias Johnsen
- **FRANCE:** Thierry Schneider, Vincent Thonier
- **ITALY:** Saverio Misso
- **MACEDONIA:** Houria El Housse
- **SWITZERLAND:** Mikael Gencay
- **SWEDEN:** Saad Muhallab
- **TURKEY:** Abidin Gulmus
- **UNITED KINGDOM:** Anna Lindahl

West Pacific

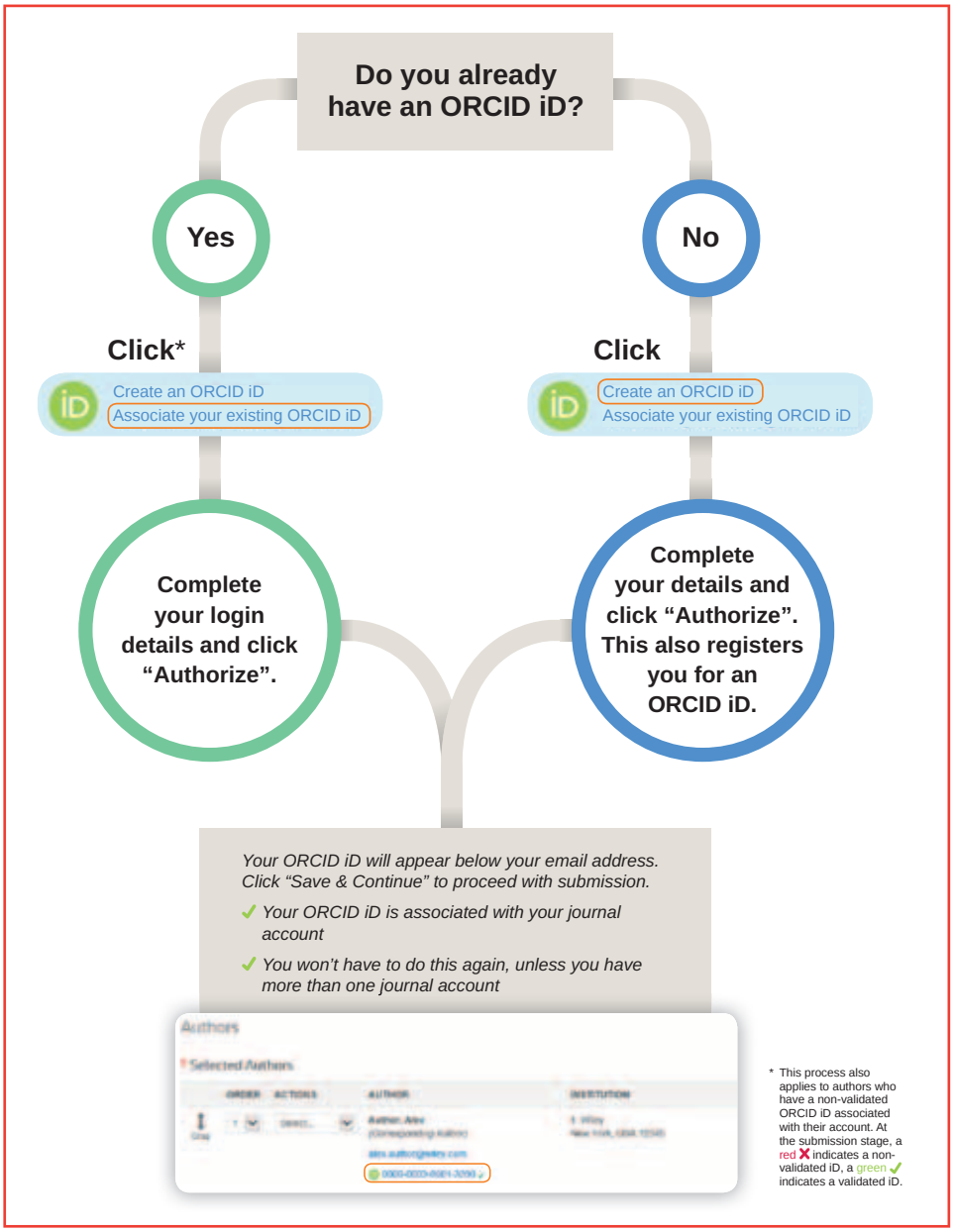
- **AUSTRALIA:** Richard Blennerhassett, Stephen Wright, Greg Wilkie, Cindy Pulanco, Leonardo Pasalic, Rick Tocchetti, Tanya Davidson
- **CHINA:** Jinghan Liu

South East Asia

- **INDIA:** Ashish Joshee, Soumia Das
- **SRI LANKA:** Pavithra Aarewatte
- **PHILIPPINES:** Ma. Angela Mirasol

ORCID Registration

With a growing online database of research and researchers, it has become increasingly difficult for researchers to be connected to their own research. How often have you searched for a specific a specific piece of research or a researcher and encountered different authors with a similar last name, field of research or research title? It has become much more difficult for scientists and others, for example students, to find all articles published by a certain researcher due to interference of researchers with similar names, titles, etc. In order to overcome this, an increasing number of journals have started to adopt ORCID iD in the manuscript submission process.



ORCID aims to connect research and researchers. The sixteen-digit digital identification code can be obtained easily via orcid.org, and allows researchers to connect all research (co-)authored by them to their personal ORCID. Several journals have already started requiring an ORCID in the manuscript submission process, and have received positive feedback. So far, over 2,1 million researchers have created a personal ORCID, linked to over 5 million DOI's. Wiley, the publisher that publishes Vox Sanguinis and the ISBT Science Series, also aims to incorporate ORCID in the near future. The ISBT recognises the benefit of using ORCID, seeing it as an improvement in the current accreditation system of researchers and a solution to name ambiguity in research. Therefore, from November 2016 the use of ORCID iD has been implemented in the manuscript submission process of Vox Sanguinis and the ISBT Science Series. For more information on ORCID and how to create your own unique iD, please visit orcid.org.

Prizes and Awards granted in 2016

The ISBT Presidential Award

The ISBT Presidential Award was instituted at the initiative of the Foundation Transfusion Medicine in Amsterdam. The Award is granted to a senior person who has made eminent contributions to transfusion medicine or a related field through basic or applied research, the practice of transfusion therapy or through significant educational and/or service contributions to the field. In 2016 the award was presented to Dr Harvey G. Klein who has (co-)authored over 250 publications pertaining to haematology and blood transfusion.

Jean Julliard Prize

The Jean Julliard Prize recognises clinicians or scientists who are less than 40 years of age and have a noteworthy portfolio of recent published work contributing to advances in transfusion medicine. The award is presented biannually at the International congress of the ISBT. This year the award was presented to Dr Gustav Edgren at the ISBT Congress in Dubai. Dr Edgren held the Prize Lecture on his winning research titled "Big data in transfusion medicine – towards a database driven approach to ensuring the long-term health of both blood donors and transfused patients".

ISBT Award for Developing Countries

The ISBT Award for Developing Countries was created out of the vision of Erhard Seifried, a past president of ISBT. It is awarded to a Blood Service/Centre from a Developing Country that has made a significant contribution in strengthening Blood Transfusion Practice within the Country. This award enables Blood Services and/or Centres and individuals from low or medium human development index countries to attend an International Congress of the ISBT and organize an education symposium.

The award was presented in Dubai for the third time, and was awarded to the National Institute of Haematology and Blood Transfusion Hanoi, Vietnam. Also, two certificates of commendation were issued to two applicants. These were the Bicol Medical Centre Blood Bank and Transfusion Services in the Philippines, and the Aga Khan University Hospital Blood Bank in Pakistan.

The ISBT Award

The ISBT Award is granted to a person who, or an organisation which contributes or has contributed in an outstanding way to education in blood transfusion or transfusion medicine science. The Award is the prerogative of the Executive committee of ISBT. This year there are two recipients of the Award; Beryl Armstrong and Steve Morgan. Beryl Armstrong is cited for her active role in furthering the mission and objectives of ISBT in respect to education; her long membership of the ISBT Education and Academy standing committees, her editorship of the popular Science Series book Introduction to Blood Transfusion Technology and her organisation and promotion of the ISBT Academy days at the African Society for Blood Transfusion congresses in 2012, 2014 and 2016. Her responsibilities for the overall direction and implementation of the Step Wise Accreditation Programme and Education programme in her role as Programmes Director for AfSBT are also recognised. Steve Morgan is cited for his eight year term as Treasurer of ISBT, particularly for securing ISBT's financial reserves during the global financial crisis to ensure the continuing activities of the Society and for his role in the re-establishment of the ISBT Foundation which is key for the sustainable funding of ISBT's strategic objectives in respect of education for the global transfusion community.

The Vox Sanguinis Best Paper Prize

Every year the Standing Committee of Vox Sanguinis and the Editorial Board grants a scientific award, the "Vox Sanguinis Best Paper Prize" for the best original paper published in Vox Sanguinis in the previous calendar year. The Prize for the best article published in 2015 was awarded to T Berthold and co-authors for the article "HNA antibody-mediated neutrophil aggregation is dependent on serine protease activity" (Vox Sang 109, 366–374).

EDUCATION

What's new on the Academy ePortal

We have added a new box to the ISBT Featured Content page, the Useful Links. This box includes links to internal ISBT-webpages, as well as external websites where relevant blood transfusion medicine-related content is available. Currently it includes links to the Patient Blood Management Resources library of the Clinical Transfusion working party and the Case Studies of the Immunohaematology Working Party.

Webcasts and Personal reflections

If you missed a talk, if you would like to review the ones that you visited at the 34th International Congress of the ISBT in Dubai or if you were not able to attend the congress, a selection of 41 webcasts including talks of the Academy Day as well as various inspiring presentations of the plenary-, the Jean Julliard Prize- and the Presidential Award sessions are accessible on the Academy ePortal. Additionally, 17 learning quizzes each related to a certain webcast talk are now also available for those who would like to test their knowledge on different topics.

Furthermore, a number of short talks (Personal Reflections) on various aspects of transfusion medicine from experts and interviews featuring experienced specialists and young investigators will be posted very soon.

Academy applications

Founded in 2006, the ISBT Academy supports educational activities financially or by the use of the ISBT logo. Financial support for the Academy is given by the ISBT Foundation. In 2016, we received various requests for funding workshops and congress sessions from many different countries including Brazil, Guatemala, Sweden, Italy, Russia, India and Pakistan. Funding is available for any educational activity including hospital trainings, practical or theoretical workshops or congress sessions organized by a national society. Applications for events to be held between June and November should be sent no later than April 1. October 1 is the deadline for events to be held between December and May.

To apply you need to fill in the application form online (http://www.isbtweb.org/knowledge-education/) and upload documents including the Preliminary programme, an estimated budget and a feedback form for delegates. All applications are reviewed by the Advisory committee.

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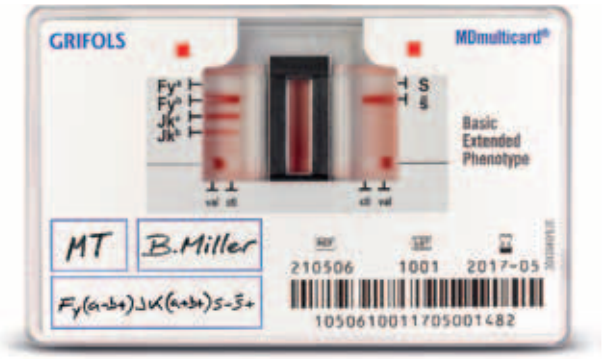

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ISBT ACADEMY

Agneta Wikman
Associate Professor Clinical Immunology and Transfusion Medicine, Karolinska University Hospital

Petter Höglund
Dept of Clinical Immunology and Transfusion Medicine, Karolinska University Hospital, Stockholm, Sweden

XIV European Symposium on Platelet and Granulocyte Immunobiology, Stockholm, May 26-28 2016.

The biannual European Symposium on Platelet and Granulocyte Immunobiology (ESPGI) is organized by representatives for reference laboratories in platelet and granulocyte antibody diagnostics. The first meeting was organized by Cecile Kaplan and colleagues 1992 in Paris, and has since then been held every second year in different European cities. This year, the Karolinska University Laboratory in Stockholm organized the 14th ESPGI meeting at Skogshem & Wijk, a venue by the sea, 14 km outside the city of Stockholm.

More than 140 participants from 25 different countries around the world attended the meeting. The program covered new research, diagnostic tools and screening and treatment protocols in conditions such as pregnancy immunization, autoimmune thrombocytopenia and autoimmune neutropenia. About half of the sessions were oriented towards basic science of platelets and granulocytes, represented by topics such as “New aspects in platelet immunity”, “Pathophysiology and mechanisms in FNAIT and NAIN”, “HLA immunology: relevance in platelet and granulocyte immunizations” and “Animal models in platelet and granulocyte research”.

We also aimed to give this year’s meeting a clinical focus, represented by sessions such as “Neutropenia – pathophysiology and clinical management”, “Clinical management of FNAIT”, “ITP – pathophysiology and clinical management”, “New aspects in pathophysiology, diagnostics and management of TRALI and transfusion reactions” and “FNAIT screening and profylaxis”. The mixture of basic science and clinical management was appreciated by the participants. 17 of the total number of talks were from invited speakers and 14 from abstracts chosen by a panel of experienced researchers. In addition, more than 50 abstracts were presented as posters.

Just as in previous ESPGI meetings, the main scientific program was preceded by a day in which the preliminary results of the biannual workshops organized by the ISBT working parties for Platelets (chair Sentot Santoso, Giessen, Germany) and Granulocytes (chair Lin Fung, Sunshine Coast, Australia) were presented. This year, 32 laboratories from countries in Europe, North- and South America, Asia and Australia participated in the Platelet workshop, organized and distributed from Karolinska. This workshop consisted of four different exercises, including patient plasma samples containing allo-and autoantibodies towards human platelet antigens (HPA) and glycoproteins (GP), DNA-samples for genotyping of platelet antigens, anti-HPA-1a quantification and an exercise investigating CD109 stability and anti-HPA-15 detection.

The Granulocyte workshop was organized and prepared from the University of the Sunshine Coast, Queensland, Australia and the American Red Cross, Minnesota, USA, with participation from 19 laboratories. The workshop consisted of two parts, four samples for antibody detection and identification and four samples for human neutrophil antigen (HNA) genotyping. The final conclusions from both workshops were presented at the ISBT meeting in Dubai later in the fall.

After the workshops, and officially opening the meeting, Professor Jonas Frisén from Karolinska Institutet gave a keynote lecture entitled “Dynamics

of cell exchange in the human body". This lecture represented a stimulating and appreciated divider between the practically oriented workshop discussions and the scientific meeting that started the next day.

The "European Symposium on Platelet and Granulocyte Immunobiology" attracts a network of researchers, laboratory people and clinicians from the whole world, many coming back every time. The discussion of the workshop results, in combination with a small sized interactive scientific meeting represents an attractive combination, contributing to the success of the ESPGI meetings. The results presented and ongoing studies are moving the field forward, referring both to diagnostics and treatment protocols. The participants expressed appreciation of excellent speakers and interesting new data. We are looking forward to the next meeting, which will be organized by Masja de Haas and coworkers, somewhere close to Amsterdam, in 2018.

ISBT ACADEMY

Raffaele Pecora
Avis Campania - Presidente

Avis 6th International Congress Naples, Italy

The 6th International congress of AVIS was held in collaboration with local, international organizations and the ISBT. The congress was held in the beautiful Castel dell'Ovo in Naples on October 14, 2016.

Pasquale Pecora opened the congress on behalf of the AVIS President and introduced the representatives and guests who made the conference possible. The congress was divided in three scientific parts.

Session on blood donations and donors
To fulfill the clinical needs of patients donors are recruited and selected. Peter van den Burg, Sanquin blood supply, the Netherlands, discussed the issues to select the right donor for the right recipient. The selection of donors is based on EU directives and EDQM (European Directorate for the Quality of Medicines) and Beate Rothe, on behalf of Marie-Laure Hecquet, EDQM, presented the EDQM guidelines and the training offered.

Ravi Reddy, president of the ISBT, spoke on maintaining a 100% Voluntary Non Remunerated Blood Donor Base (VNRBD) in South Africa, which has a population of 54 million people but only about 5 million are potential donors. SANBS has implemented a number of education, recruitment, retention and marketing initiatives in order to ensure a safe and sustainable blood supply. Yetmgeta Abdella (WHO) presented the activities and efforts of the WHO, focussed on the Eastern Mediterranean Region to improve safe and sufficient blood collection and transfusion. Donor protection is of paramount importance and Karin Magnussen, FIODS and blood collection Denmark, presented new data about high ferritin levels in donors and its consequences. Wim de Kort, Sanquin blood supply in the Netherlands, ended this session with a presentation to trigger the audience about decision making in donor selection.

Session on quality of hemocomponents and plasma
Dragoslav Domanovic (European Centre of Disease Control) presented the activities of the ECDC. Dragoslav focussed on the Hepatitis E virus and discussed the effects and blood safety in relation to the food chain. Quality is the backbone of donation and transfusion safety and Claudio Napoli, haematologist Academic Hospital Naples, gave a lecture with respect to the critical issues and control in quality management. Françoise Rossi, Director IPFA, discussed the qualitative and quantitative aspects of plasma collection for production of medication from a global view and focussed on the Italian situation.

Session on molecular blood group and serology
Martin Olsson, department of haematology and transfusion, Lund University in Sweden, presented new insights in blood types since the availability of molecular techniques. Jill Storry, working in the same department as Martin Olsson, presented the function of antigens on erythrocytes. This presentation shaped the philosophical end of the scientific program by realising that you are wisest if you realise what you do not know. We thank ISBT and its academy to contribute to this congress.

ISBT GUANGZHOU 2017

November 25 - 28, 2017

28th Regional Congress of the ISBT

In conjunction with the 8th National Conference
of the Chinese Society of Blood Transfusion

Venue: Baiyun International Convention Centre,
Guangzhou, People's Republic of China

ISBT International Society of Blood Transfusion

Join us for the 27th regional congress of the ISBT June 17 - 21 in Copenhagen, Denmark. This meeting will give you a brand new congress-experience, introducing new technological dimensions to the scientific programme. Our invited speakers will provide insights in the latest developments in Transfusion Medicine, and our exhibitors who will be exhibiting alongside the scientific programme will introduce you to the latest technological innovations. On Sunday you are invited to join the ISBT Academy day and the Opening Ceremony which will officially open the congress and exhibition with a surprising act. The scientific programme of the congress is characterised by plenary and diverse parallel sessions on transfusion related topics varying from Big Data to Developing Countries, and from Challenges of Terrorism to Zika.
The parallel sessions will include oral presentations from best scoring abstracts, and the poster session will be an opportunity to read and hear about new research.

Abstract Submission
We invite you to submit your abstracts via the congress website. Please only submit an abstract if you intend to attend the congress. An international panel of experts will review and select abstracts for oral or poster presentation. Note the deadline for submission is set at Thursday March 9, 2017 at 23.59 hours (CET).

Young Investigator Breakfast
On Monday morning the Young Investigator Breakfast Session will be organised between 7.00-8.15, which will provide a chance for researchers <35 to meet and discuss with transfusion experts. Furthermore, several workshops will be organised, as well as special sessions for Young Investigators and Transfusion Practitioners.

Social Programme
The social programme of the congress will include a congress party held at the Øksnehallen in the Meatpacking district of Copenhagen, introducing delegates to Danish culture. For more information about registration, abstract submission, and the scientific and social programmes please visit www.isbtweb.org/copenhagen.

We look forward to welcoming you in Copenhagen.

Time	Sunday June 18	
09.00 - 10.30	Donors and Donation	Transfusion Therapy
10.30 - 11.00	**Coffee Break**	
11.00 - 12.30	Organisation and Quality, Clinical Governance	Immunohaematology
12.30 - 13.30	**Lunch Break**	
13.30 - 15.00	TTID	Clinical Transfusion Practice
15.00 - 15.30	**Coffee Break**	
15.30 - 17.00	Blood Components and Supply Management	Cellular Therapy
17.30 - 18.30	**Opening Ceremony**	
18.30 - 21.00	**Opening of Trade Exhibition and Welcome Reception**	

Time	Monday June 19				
07.00 - 08.15	**Young Investigators Breakfast Session**				
08.30 - 10.00	Challenges of terrorism and catastrophies: too much or too littie blood?	Late breaking Zika session	Clinical Use of Immunoglobulin	CAR T Cells	Antenatal Determination of Fetal Blood Groups or Antigens
10.00 - 10.30	**Coffee Break**				
10.30 - 12.00	**Plenary Session I: Major Bleeding**				
12.00 - 14.00	**Lunch and Satellite Symposia**				
14.00 - 15.30	Benchmarking	Blood Safety Abstract Session	Coagulopathy of Acute Critical Illness	Mesenchymal Stem Cells	Alloantibodies in Transfusion Medicine
15.30 - 16.00	**Coffee Break**				
16.00 - 17.30	Donor Health	Alternative Treatments	So much more than clots	Haemoglobinopathies in the Developing World	The HLA System in Transfusion
17.30 - 18.30	**Poster Session**				

Time	Tuesday June 20				
08.30 - 10.00	Plasma Supply Management	NAT v HbSAg	Back to the Future – Is there a role for whole blood transfusions	Metabolomics in Blood Banking and TM	Young Investigator Session
10.00 - 10.30	**Coffee Break**				
10.30 - 12.00	**Plenary Session II: To be confirmed**				
12.00 - 14.00	**Lunch and Satellite Symposia**				
14.00 - 15.30	Clinical Transfusion in Developing Countries	Transfusion Transmitted Arboviruses	Clinical Paediatric PBM	Pathogen Inactivation	Genotyping Strategies in the Blood Bank
15.30 - 16.00	**Coffee Break**				
16.00 - 17.30	Healthy Donor Effect	Blood Safety Abstract Session	Total Laboratory Automation	Growing Blood	Platelet immunobiology
19.30 - 23.30	**Congress Party - Øksnehallen**				

Time	Wednesday June 21				
08.30 - 10.00	Donor Psychology	Impacts of Climate Change on Infectious Diseases	Patient Blood Management	Improving Blood Transfusion in the Developing World	Immunity Against Transfused Red Cells
10.00 - 10.30	**Coffee Break**				
10.30 - 12.00	**Plenary Session III: Blood Donor Studies and Big Data**				
12.00 - 14.00	**Closing Ceremony**				
15.30 - 16.00	**Farewell Lunch**				

www.isbtweb.org/copenhagen

CONGRESS

May Raouf
Head of Dubai Blood Donation Center,
Chair of LOC

The ISBT 34th International Congress, Dubai 2016

It has been a great experience for United Arab Emirates to host and co-organize this prestigious scientific meeting which was hosted in the Middle East for first time in the history of the ISBT. It is really a wonderful opportunity for physicians, technologists, nurses and other medical personnel in this region of the world to participate in this important event together with their colleagues from different parts of the world.

Ellen van der Schoot and the local and ISBT scientific committees worked closely together to develop a solid scientific program that has covered the educational and developmental needs of a wide spectrum of transfusion professionals. The large number of participating countries has flavoured the program with a diversity of experiences and topics. In addition; the local day programme was very successful with a very large number of participants from regional and other countries.

As local organizing committee we would like to thank ISBT for giving us this opportunity to learn a lot of organizational skills. Now we understand very well how the ISBT scientific committee is fair in selecting abstracts for presentations and poster sessions; giving the chance for participants from different part of world to participate and share knowledge and exchange experience. I would like to encourage blood bankers and related professionals to work hard and participate in ISBT scientific program on regular basis by submitting their papers and sharing information with other colleagues and attending the interesting educational programs that is expanding every year. Participant's feedback was excellent during the days of the congress as most of them found that they have been exposed to latest research findings, state-of-the-art presentations and technologies, and excellent educational opportunities during the Academy Day.

The Dubai congress app was available for download in the Apple iStore and Google Play store. It provided delegates with direct access to the scientific program, speaker directory, abstracts, and venue maps; making participants needs accessible, easy and available.

The Social Programme presented an ideal opportunity to experience the multi-cultural delights of Dubai. The organizing committee has presented the hospitality of Emirates society in a beautiful way with many different delicious Arabic dishes, Henna and Arabic calligraphy.

We are honoured and pleased to be able to meet participants expectation at organizational, scientific and social aspects; looking forward to seeing you in future ISBT activities.

Vincent Thonier
Institut National de la Transfusion Sanguine, France

CONGRESS

Reflections from a Harold Gunson Fellowship winner

First, I would like to thank the ISBT standing committee for granting me a Harold Gunson fellowship. I would also like to thank the organizers for doing such a good job with the registration, the hotel and the flight formalities. From my perspective, I really felt like an honored guest. My overall opinion about the congress is that I had a very interesting time in Dubai, for many reasons, some of which I will explain below. Like most of the attendees, I had two goals to achieve during this conference: education and networking.

Although I had previously attended different conferences organized by national societies, this was my first ISBT congress. It was a great opportunity to have a glimpse of what is going on in the transfusion field worldwide, rather than focusing only on one nation's individual experiences. I really appreciated hearing about the issues that countries with a lower income than mine (France) have to deal with, and how they cope with this. For example, I remember the South-African experience with Hepatitis E and the management in India of ABO incompatibilities at birth. I also was pleased to attend talks about high-income countries that are dealing with the same issues I deal with in my own lab. It is really a good way of benchmarking. I can mention the experience of managing sickle cell disease patients in one of the London referral centers, and a useful presentation during the academy day about the clinical significance of antibodies. Finally, I appreciated listening to talks on topics not directly linked to my field, such as the cellular mechanism involved in the antibody-mediated phagocytosis of red blood cells and the great presentation on the update of cultured red blood cells. For most of the scientific program, I went to the sessions linked to my field. I found the 10 minutes presentation format too short for some of them, as it was not enough time to put the issue in a larger context. Being selected for an oral presentation made it easy for me to promote my own work.

Meeting new people and networking are among the most important goals of a congress. As a newcomer, it was not the easiest part, but the luncheon that was organized for the fellowship winners at the beginning of the conference helped me get to know people. I very much appreciated the opportunity to meet members of the ISBT board. Because we briefly introduced ourselves and our presentation topics, I was able to schedule the different sessions I wanted to attend with new familiar faces. The award ceremony was also nice and joyful. As I attended the conference with some of my colleagues, I also had the chance to be introduced to many people at the congress party.

To make Harold Gunson winners' experiences even better I would suggest allowing the next winners to attend the working party of their field as a guest. I had the chance to be invited to some of them. It helped me understand more precisely the ISBT's role in promoting a better and safer blood supply worldwide.

Hafiz Irfan Shabber
Technical Officer at Safe Blood Transfusion Programme & Islamabad Blood Transfusion Authority

I TRY IT 2016

At the 33rd ISBT Congress in Seoul, the Transfusion-Transmitted Infectious Disease (TTID) Working Party (WP) discussed the development of a new subgroup for young investigators (TTID-WP-YI). The objective was to further refine research readiness and provide an overview of key skills that will advance research ability for young investigators. This subgroup introduced a new training course for young investigators known as ISBT TTID Research Young Investigator Training (I TRY IT) with the vision to provide participants a setting where they can discuss new ideas with TTID experts, learn principles of TTID research and scientific studies in general, and reinforce these ideas with a practical aspect focused on writing a research protocol.

The I TRY IT programme was first implemented in 2015. For the year 2016 applications were called in April. A total of 38 applications were received. The participants were provided with the books required for the course. Eight webinar lectures were conducted from May to August 2016 by four mentors including Brian Custer from USA, Michael Schmidt from Germany, Marion Vermeulen from South Africa and Sheila O'Brien from Canada. The participants were given assignments after each webinar lecture contributing to development of a research protocol which was reviewed by the mentors. Participants were also invited to the 34th International congress of the ISBT in Dubai and one-on-one mentoring sessions were conducted and training on peer reviewing was given. Four more webinar lectures and discussions will be conducted on data analysis and presenting research in November and December 2016. The TTID WP will award maximum three grants of € 5,000 each to the best protocols among those who submit final protocols. Course certificates will also be awarded to the successful participants.

The course provided an overview of conducting scientific research to the participants and an opportunity to work with senior experts from TTID Working Party. The mentoring will continue through the whole process of conducting research and writing, publishing and presenting a scientific paper for all participants and observers.

I TRY IT 2016 Mentors and participants at ISBT Dubai 2016

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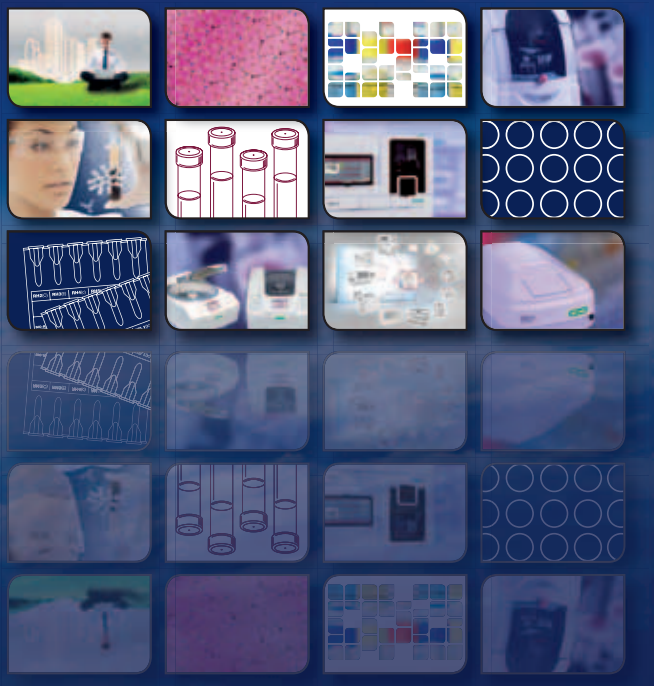

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Nicole Thornton
NHS Blood and Transplant
Vice Chair of the ISBT Working Party on Immunohaematology

Thierry Peyrard
Director of the National Immunohaematology Reference Laboratory, Paris, France
Chair of the ISBT Working Party on Immunohaematology

The ISBT Working Party on Immunohaematology Workshop on the Clinical Significance of Red Cell Alloantibodies

The workshop on the clinical significance of red cell alloantibodies was organised by the Executive Committee of the ISBT Working Party on Immunohaematology (WPIH) and took place in Dubai on 9th September for one whole day in conjunction with the 34th International Congress of the ISBT.

The topic of the clinical significance of red cell alloantibodies is a matter of high concern for all immunohaematologists and transfusion medicine specialists. It is essential to have a clear understanding of the topic when dealing with advising, or making clinical decisions, regarding selection of suitable blood for transfusion or in an obstetric setting. The topic was found to be a recurring subject of interest from the participants at the inaugural meeting of the WPIH in Seoul, 2014 and we decided that the first workshop of our newly formed working party should address this subject.

Pre-registration for the workshop reached maximum capacity and attendance was high with a final total of 66 participants, representing 25 countries, which turned out to be the most popular ISBT workshop ever, according to the ISBT Central Office. A wide range of professions were represented, including Medical laboratory Technologists, Medical Doctors/Clinical Pathologists, Scientists, delegates from IVD companies and students.

The workshop program was built with the aim of addressing five main educational objectives:

- To understand the definition of a clinically significant alloantibody.
- To establish an awareness of the Notify Llibrary international database and understand how to participate.
- To gain insight into the biological tools available to predict the clinical significance of alloantibodies.
- To gain an understanding of the current information available about blood group alloantibodies and identify areas where efforts could be concentrated to enhance our knowledge base.
- To exchange practical experience and promote technical networking between the participants

The morning started with exploring the definition of a clinically significant alloantibody. Thierry Peyrard presented the current literature data and various published definitions about the clinical significance of a red cell alloantibody. A brainstorming time with small group discussions ensued with much debate and opinion regarding what could be the most appropriate definition.

Sandra Nance continued the morning session by presenting a review on in vitro methods available to predict the clinical significance of alloantibodies. These methods are of particular interest when antibodies to high frequency antigens are present and compatible blood may not be available. The pros and cons of such tests were discussed and participants shared their experiences.

The morning session concluded with a joint presentation from Barbee Whitaker and Evi Petrisli on Notify Library, the global vigilance and surveillance database for medicinal products of human origin (http://www.notifylibrary.org/). This provided a wonderful opportunity to learn about the Notify Library initiative and included a live demonstration. It was apparent that the database is a valuable evidence based resource. The section pertaining to red cell antibodies is in the early stages of development and participants were encouraged and instructed on how to be actively involved in helping to build a strong evidence base for our particular area of interest.

The afternoon session tackled the daunting task of systematically reviewing the data available regarding the clinical significance of all known red cell alloantibodies. Nicole Thornton, Sofia Lejon-Crottet, Mostafa Moghaddam and Christine Lomas-Francis presented the information available and shared case studies. Participants were actively involved by sharing and discussing case experiences. The presentation data is planned to be published in review format in the journal Immunohematology.

On behalf of the Executive Committee of the WPIH, we would like to thank all the invited speakers and participants for making our first workshop such a success. We appreciate all of the positive and constructive feedback given by participants in their evaluation forms and plan to develop the workshop further to incorporate their suggestions. We thank the ISBT Academy for funding the workshop and providing the opportunity to offer this educational event.

Image 1. Chair of the Working Party, Thierry Peyrard, delivering the first presentation of the day
Image 2. Workshop participants enjoying a buffet lunch

Brigitte Flesch
Director of Immunogenetics laboratory,
Bad Kreuznach, Germany

The HNA-nomenclature working group – A subcommittee of the Granulocyte Immunobiology Working Party (GIWP)

International specialists in the field of immunobiology and molecular genetics have been working for over two decades to elucidate the clinical importance and genetic basis of human neutrophil antigens (HNA) and the antibodies to these antigens that cause pathological consequences. At the beginning of the 21st century, with a growing awareness of the clinical importance of Transfusion Related Acute Lung Injury (TRALI), the attention of transfusion specialists and clinicians was drawn to the immunobiology of HNA. However it wasn't until 2010 that the molecular basis of HNA-3a, whose corresponding antibodies were frequently associated with severe and fatal TRALI cases was resolved1, 2. In addition, other recently described alleles and epitopes already associated with known glycoproteins required unambigous assignment to the nomenclature which had originally been established in 19983. Consequently, an HNA nomenclature subcommittee of the Granulocyte Immunobiology Working Party (GIWP) was formed in 2013 at the 23rd ISBT Regional Congress in Amsterdam. The members of this subcommittee are Brian R. Curtis (Milwaukee, USA), Masja de Haas (Amsterdam, The Netherlands), Geoff Lucas (Bristol, UK) and Ulrich J. Sachs (Gießen/Marburg, Germany) under the chair of Brigitte Flesch (Bad Kreuznach/Hagen, Germany). The chair and members are elected for 4 years for a maximum of two terms. Each member of the subcommittee has outstanding experience in granulocyte immunobiology, its clinical relevance, and molecular typing as demonstrated by numerous publications in high quality international journals. The objective of the GIWP HNA-nomenclature subcommittee is to advise and communicate key matters of HNA nomenclature to ISBT members and to monitor and modify the established nomenclature as necessary in the light of recent developments.

The HNA nomenclature subcommittee works in tight collaboration with the International Granulocyte Immunobiology Workshop (IGIW) whose participating laboratories have reference laboratory status. In May 2016, the participants of the IGIW voted to become a subcommittee to the GIWP. New alleles and epitopes must first be confirmed by IGIW reference laboratories before the HNA nomenclature subcommittee may decide on assignment to the established nomenclature.

Members of the subcommittee regularly organize meetings at international or regional ISBT conferences and at the meetings of the European Symposium of Platelet and Granulocyte Immunnunology (ESPGI) in addition to a steady communication between themselves. The last meeting of the subcommittee was held at the XIVth ESPGI meeting in Stockholm in May 2016.

The most recent HNA nomenclature update has been published in Transfusion4 and summarizes the officially assigned HNA alleles and epitopes as of 2016 (Table 1).

Table 1

Antigen system	Alleles	Epitopes	
HNA-1	FCGR3B*01	HNA-1a	
	FCGR3B*02	HNA-1b	HNA-1d
	FCGR3B*03	HNA-1c	HNA-1b
	FCGR3B*04	HNA-1a	
	FCGR3B*05	HNA-1b	Variation is reported
	Gene deficiency	HNA-1 null	(no FcγRIIIb)
HNA-2	CD177	HNA-2	
	Differential splicing?	HNA-2 null	(no CD177 gp)
HNA-3	SLC44A2*01	HNA-3a	
	SLC44A2*02	HNA-3b	
	SLC44A2*03	HNA-3a	Variation is reported
HNA-4	ITGAM*01	HNA-4a	
	ITGAM*02	HNA-4b	
HNA-5	ITGAL*01	HNA-5a	

Recently, two papers addressed the molecular basis of the HNA-2 deficiency5,6 and discussed a single nucleotide exchange of the CD177 gene as the possible cause for the HNA-2 negative phenotype in cases of HNA-2 antibody formation. These observations together with further aspects concerning the complex structure of the FCGR3B gene and copy number variation will be discussed by the GIWP and its subcommittees in the future.

Everyone interested in the immunobiology of HNA is invited to contribute to the topic or contact the nomenclature subcommittee with any questions or recommendations via b.flesch@bsdwest.de.

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1. Greinacher A et al.: Nat Med 2010;16:45-48
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SOUTH EAST ASIA

Appropriate clinical use of blood for patient safety

Yuyun SM Soedarmono
Regional Director of ISBT for South East Asia

Blood transfusion contributes to saving lives, improves life expectancy and the quality of life of transfusion-dependent patients, and supports complex medical and surgical procedures.

Patient safety in blood transfusion depends not only on the safety of blood products but also the safety of the clinical transfusion process – a process consisting of a series of inter-connected steps from the prescription and ordering of blood products to management of adverse transfusion events. [1] Awareness of clinicians on appropriate clinical use of blood is one important aspect that should be continuously improved to ensure patient safety.

Indonesia, Myanmar, Bangladesh, Nepal and Bhutan have been first introduced to the WHO Learning module on 'The Clinical Use of Blood' and Learning Handbook on 'The Clinical Use of Blood' in 2003, in the WHO workshop on Clinical Use of Blood in Yangon, Myanmar from 9 to 12 April 2003. The workshop was conducted to achieve the aim of reducing unnecessary blood transfusions and promoting the proper use of blood and blood components. Indonesia sent five clinicians (from department of Anaesthesiology, Obstetrics and Gynaecology, Surgery, Internal Medicine and Paediatrics); and one blood center director to join that workshop.[2]

Since then, the trainees from Indonesia spread the information to their own colleagues through seminars, and even inserted the appropriate clinical use of blood knowledge into the professional education curricula and their professional standard. For example the internal medicine profession has put the ability of delivering safe and rational blood transfusion under the competency of hematology and medical oncology.[3] Improvement of Indonesian clinician's knowledge on appropriate use of blood was impacted on increasing demand of blood components, that can be described by increasing processing of whole blood into blood components (Figure 1).[4,5]

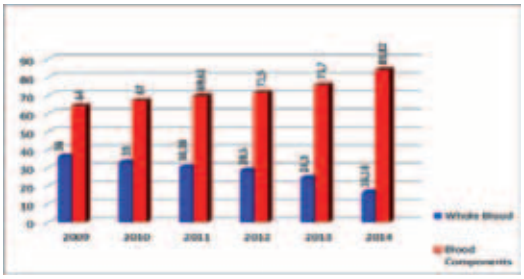

Figure 1. Percentage of Blood Components Processing in Indonesia 2009-2014

Low awareness of clinicians on appropriate use of blood is still exist in many small cities. For example, there were some informal reports of excessive prescription of whole blood for surgery and obstetrics cases; excessive prescription of thrombocyte concentrate for dengue hemorrhagic fever; fresh whole blood requests for every diseases; and others.

On the other hand inappropriate use of blood also happened because of lack of knowledge in preparing and administering blood transfusion among nurses. There were still a lot of nurses warming the blood before transfusion by putting blood on the table for more than 30 minutes or even hours, soaking the bag of blood into the laboratory water bath, covering blood with cloth or even putting the blood in the arm pit.

To cope with the above mentioned problems, the government mandated every hospital to establish a blood bank unit that store and run pre transfusion testing. The hospital blood bank operates "cross-matched and hold system", in which the compatible blood will only be delivered to the hospital wards one by one to avoid blood wastage and unnecessary transfusion. Moreover, inserting the appropriate clinical use of blood topic into annual congress of professional associations such as internal medicine, obstetrics and gynecology, pediatrics and clinical pathology is done continuously as can be seen in Figure 2 and 3.

In conclusion, improved awareness of appropriate clinical use of blood should become continuous activity to be given to clinicians and nurses. This increased awareness will greatly contributes to patient safety.

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Figure 2. Workshop on Haemorrhagic and Transfusion in Child in Makasar-Indonesia, 17-18 September 2016

Figure 3. Workshop on Blood Transfusion Update for patient Safety and Quality of Product in Balikpapan-Indonesia, 24-25 September 2016

SOUTHERN AMERICAS

Jorge Curbelo
Director of the regional Haemocenter of Maldonado

Obtaining ISO 9001 Certification

Regional Center of Transfusion Medicine Maldonado, Uruguay

The Regional Haemocenter of Maldonado – Punta del Este, Uruguay has achieved the certificate under the UNIT-ISO 9001: 2008 after a process of three years. The Haemocenter of Maldonado is a public institution which belong to the National Blood Service and ruled by ASSE (Administration of Health Services State) and offers their inventory to institutions both private and public.

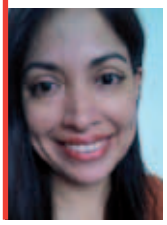
UNIT Uruguayan Technical Standards is held by the national institute UNIT and is member of an exclusive representative of ISO 9000 international standard and belongs to the International Organization for Standardization which is formed by a worldwide network of institutes of 156 countries.
Nowadays Maldonado is the only Haemocenter in Uruguay and the first to achieve certification in the areas of communications and promotion of blood donation through the programs of "Schools Supporting Blood Donation" , Care giver, Central Collection Facility and Outwalls collection facility (Hemobus Schedule Program), Production of blood components, Program of Quality Assurance, Immunohaematology laboratory SOP, Management in Communications Policies Distribution of Blood components and Appropriate use of Blood in hospitals from Maldonado and San Carlos.

The auditory process was conducted in two stages in July with the aim of determining the compliance management system, assess the ability to meet legal and regulatory requirements, and assess their effectiveness in meeting the specific objectives and identification of improvement areas.

Maldonado is the only Haemocenter which has programs on quality blood components and maintenance of Quality Management System. These areas, together with senior management plans have set new objectives, such as:

- Progress in ISO 9001, for it has a risk assessment team that would also meet new requirements to focus on corrective measures and continuous improvement.
- Continue to expand corporate goals, be the centre of high medical training technical reference allowing national and international education.
- Foster international alliances like those we already have with Valencia and Barcelona.
- Our institution is also committed to achieve new international standards and we are developing the strategic skills for it.

These achievements, based on 7 years of really hard work make our Regional Haemocenter and the Transfusion Medicine Centre of Maldonado the leaders of the quality process at the service of Uruguay Health Program.



Ina Pérez Huaynalaya
Chief of Blood Bank, Transfusion Services, Lima, Peru

Implementation of an Accreditation process: A necessary challenge

We started with Delgado Clinic (AUNA) in Lima, Peru in 2014 as a Blood Bank and a Clinical Transfusion Service. In 2015, after exactly one year, we applied internal auditory for ACI (3) (Canadian Accreditation by Omentum International) based on ISO 15189 - 2007 (4) rules for transfusion services, in the first diagnosis we reached 85%. The final evaluation is performed in 2016.

From this experience I think accreditation of any institution is first and foremost a human talent development and motivation process, because the most demanding thing is to change and compromise ways of thinking and attitudes. During this period we became consultants and teachers for Haemovigilance with 160 nurses, 400 medical doctors from different specialties and 40 clinical technicians.

At the blood bank we have 9 Medical Technologists in charge of Immunohematology, Serological test, and Quality Control (internal and external based on EDQM(1) Standards), 5 Laboratory Technicians from Volunteer Blood Donation Collection, and 6 faculty Clinical Pathologists in charge of translating Transfusion Medicine into Medical Protocols, the Active Committee of PBM Lectures and Guidance, as well as the Haemovigilance of our patients and blood donors. In order to evaluate the different areas, we created a new Protocol for Surveillance of Blood Donations (2). An exciting example: we could achieve 40% of Volunteer Blood Donation, because our country currently only reaches 5% of the potential donor population.

A main goal of our institution is to take note of the risk of errors and incidents in the work. In the current system this is difficult to document, yet we strive to achieve a proper documentation of risks and accidents. Safety comes first, no matter what happens.

One of the main objectives of accreditation is cooperation, not just goals but to reach every standard as a team, showing strong ethic compromise, taking care of each service in the institution and not just blood bank, and developing documents on patient safety as well as lectures for health workers. It is quite overwhelming how our work has influenced the result of associated critical areas (obstetrics, surgery, anaesthesiology, emergencies and ICU) and the remarkable grade of satisfaction.

We are finally on the right track, and aim to continue this path.

References:

1. Guide to preparation, use and quality assurance of Blood Components. EDQM 18 th edition 2015. Recommendation N° R (95) 15.
2. Donor Services Training, Everything you need to know to process donors. AABB, 2012.
3. Qmentum International, ACI 2016 standards.
4. Normative, ISO 15189 – 2007.

SOUTHERN AMERICAS

Alfredo Mendrone-Júnior
Medical Director of Fundação Pró-Sangue

Carla Luana Dinardo
Head of the Transfusion Medicine department

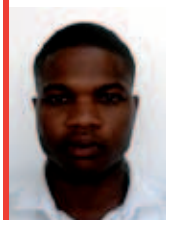
Technological developments of Fundação Pró-Sangue: What is new at São Paulo largest public blood bank?

Fundação Pró-Sangue (FPS) is the largest public blood bank of São Paulo, Brazil, supplying approximately 30% of its metropolitan area. Founded in 1984, the institution has recently undergone three important technical improvements which positively impacted the transfusion process: the implementation of microbiological inspection in all collected platelet units; the consolidation of molecular biology as an adjunctive tool in the immunohaematology laboratory and the routine of providing cross-matched platelet units to patients with immune platelet refractoriness.

Brazilian legislation states that 1% of all collected platelet units should be subjected to bacterial inspection and this was the routine adopted by Fundação Pró-Sangue until 2014. In 2012, a fatal case of bacterial contamination involving a pre-autologous bone marrow transplantation patient occurred, highlighting the urge to modify the current routine. Since 2014, FPS implemented the HaemoneticsTM eBDS system which uses oxygen concentration as a surrogate marker for bacterial growth, for inspecting all platelet units after collection. Up to today, 35,754 units were inspected, including pools of whole blood-derived platelet and units collected by apheresis. Of these, sixteen resulted positive (1/2,234) and were promptly discarded, avoiding potentially lethal transfusion reactions. All positive results were confirmed through BacT/ALERT system, excluding false-positive results. In 50% of the positive platelet concentrates derived from whole blood, the stored red blood cell units inspected also exhibited bacterial growth. The beginning of this routine not only improved transfusion safety, but also worked as an effective surveillance of the antisepsis performed at the moment of blood collection.

In parallel to this improvement in blood quality control, the immunohaematology routine of both donors and patients started to be supported by molecular biology. Regarding the donor laboratory, 5,000 donors were genotyped for 32 genetic variations (single nucleotide polymorphisms - SNPs or insertions) encoding 21 RBC antigens and 6 PLT antigens using the OpenArray® Real-time PCR system. This enabled the creation of a virtual bank of genotyped individuals, which can now supply the needs of sensitized recipients, especially when there are no commercial anti-sera available for phenotyping the requested antigen. In the pre-transfusion routine, all sickle cell disease patients were fully genotyped for the most relevant RBC antigens and are currently receiving genotyped-matched RBC units. Even though the positive impact of this measure in the alloimmunization rates will only be subjected to assessment after a long follow-up, the time required to solve complex cases has significantly decreased and patients with RHD and RHCE variants were properly classified.

Finally, since the beginning of 2016 all patients with confirmed immune platelet refractoriness receive compatible cross-matched platelet units. Our method of choice was the cross-match by flow cytometry or PIFT (Platelet Immunofluorescence Test), which allows the detection of both anti-HLA and anti-HPA antibodies attached to the platelet surface. Before the implementation of this test, patients with immune refractoriness received random platelets units, with poor post-transfusion increment. In extreme cases, first-degree family member were recruited, which was far behind what is recommended by medical literature. After the beginning of PIFT routine the number of platelet transfusions per refractory patient has decreased and the post-transfusion corrected increment has increased, meaning that the transfusion support to this type of recipient has significantly improved.



Lucy Asamoah-Akuoko
Head, Research and Development
National Blood Service Ghana

Emmanuel Nene Dei
Health Research Officer
National Blood Service Ghana

AFRICA

The challenges and opportunities of implementing a blood safety information system in Ghana

Background

The National Blood Service Ghana (NBSG) started computerising blood donation information management in the mid-1990s by focusing on implementing a locally developed software because of the high cost of procuring a validated software. After no significant success in developing and implementing donor information management systems in three separate attempts, the NBSG took a strategic decision in July 2016 to implement the Blood Safety Information System (BSIS). The BSIS software was developed by Jembi Health Systems Npc, a South African-based not-for-profit organisation, and designed to manage donor and blood safety information from the point of donation to issue and dispatch. It is targeted for deployment in resource-limited countries and supports the African Society for Blood Transfusion (AfSBT) stepwise certification and accreditation process.

Activities

The NBSG held discussions with officials of Jembi and US Centers for Disease Controls and Prevention (CDC) in July 2016 to consider issues, such as:

- workflow and processes applied within the NBSG, and the expected impact of BSIS
- data migration from existing information technology system
- infrastructure and hardware gaps such as servers, desktop workstations, barcode label printers and scanners
- development and amendments of standard operation procedures
- functionality, limitations and deployment architecture of BSIS
- report generation
- responsibilities for management of BSIS

The implementation of BSIS at the Southern Area Blood Centre of the NBSG commenced in October 2016 with a two-week visit by the Jembi team to facilitate the completion of key activities under the implementation plan. The information technology infrastructure within the NBSG was reviewed in accordance with requirements and qualified accordingly. The software was deployed on servers and tested for accessibility and functionality, and subsequently taken through an Installation Qualification procedure with key administrators of the system. Administrators and selected supervisors of the NBSG were also trained on the Donor and Blood Management modules of the BSIS, and were supported to perform the Operational Qualification of the software after which meetings were held with them to identify and address any issues or concerns they have.

It was concluded with a meeting of all stakeholders to discuss the way forward in addressing outstanding issues, expectations for the second visit and communication and support channels.

The Jembi team is expected to train all other users, the NBSG is in the process of procuring hardware (barcode label printers and scanners) and consumables (printer ribbons and labels) for implementation.

Challenges and opportunities

Aside limited access and high cost, the NBSG has a major difficulty of finding local vendors who can supply the hardware and consumables as well as the capacity to service and maintain the equipment within the country. This difficulty has motivated the NBSG to consider efforts and opportunities to mitigate any long-term problems that may affect its operations with the use of BSIS.

Such opportunities include:

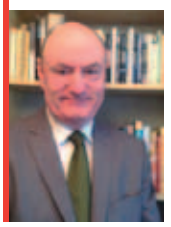
- identifying and establishing appropriate channels to gain easy access to required hardware and consumables either directly or through local vendors with the capacity to provide maintenance services
- building internal capacity to manage and maintain hardware
- continuous provision of resources and capacity to use, manage and maintain BSIS
- the possibility of using electronic records of donor information for blood donor research.

Conclusion

Creating blood safety information system in Ghana is a journey that began many years ago but has made tremendous progress this year. The NBSG will endeavour to explore all available opportunities and solutions to address identified challenges and realize its dream of computerizing blood donor and donation information.

EUROPE

National Comparative Audit – UK and beyond



John Grant Casey
Programme Manager,
National Comparative Audit
of Blood Transfusion,
NHS Blood and Transplant

The National Comparative Audit of Blood Transfusion programme (NCA) is in its 14th year and has grown from a single topic audit (bedside transfusion practice) operating in English hospitals to a programme that offers 2 or 3 audits per year to all NHS and Independent hospitals in the United Kingdom, and to hospitals in the Republic of Ireland. In addition, we now regularly audit blood transfusion in hospitals in 7 European countries that are part of the European Blood Alliance and have audited in 8 hospitals in New Zealand.

The audit programme is funded through NHS Blood and Transplant's blood price mechanism, and is accorded the same status as the audits that are funded by the UK Department of Health via the Healthcare Quality Improvement Partnership. While this means that our audits are not compulsory for hospitals to perform, nonetheless hospitals are encouraged to do so.

As a result we regularly recruit between 80-90% of NHS Trusts and 65% of Independent hospitals, which means that we are able to collect data on large numbers of patients – approaching 10,000 for one audit.

The NCA programme is given a steer by representatives of UK's medical Royal colleges, as well as medical societies and associations. The blood services in Northern Ireland, Scotland and Wales also have input to the programme. The day to day management of the programme is undertaken by an Executive Working Group, and each audit is managed by an individual project group.

Although we began by auditing the patient safety aspects our programme over the years has audited the use of blood components such as red blood cells, platelets and fresh,frozen plasma. Today's audits focus more on Patient Blood Management for patients managed by different clinical specialities.

We are currently auditing how red cells are used in a selection of surgical procedures, and in 2017 will repeat an audit of the use of red cells and platelets in adult haematology platelets. Our European colleagues began this audit with us on November 1st 2016.

The NCA programme has had a significant impact on transfusion practice since it began. We have been able to contribute to guidelines produced by the British Committee for Standards in Haematology and our data has provided evidence for arguing in favour of moving to more appropriate use of blood. Data we produce appears in many presentations worldwide, since the quality and quantity of data is among the largest sets of data ever produced, and in some cases our audits are the first ever performed – such as our current audit of red cell transfusions in hospices.

Recently, the NCA programme was given the opportunity to support a £2m research programme, funded by the UK's National Institute for Health Research. The research programme, known as AFFINITIE, is the first ever randomised controlled trial of clinical audit feedback. Clinical audit is the systematic, critical analysis of the work of healthcare professionals, comparing their practice against published guidelines or consensus opinions on best practice where guidelines do not exist. The research aims to show if there is an optimal way of feeding back the results of a clinical audit so that it demonstrably improves the uptake of evidence-based medicine. The study concludes in 2018.

To find out more about the NCA programme, please contact the Programme Manager, John Grant-Casey on +44 7720 275388 or email john.grant-casey@nhsbt.nhs.uk.

2017

March 2-3, 2017
IPFA 2nd Asia Workshop on Plasma Quality and Supply
Yogyakarta, Indonesia,

April 20 - 21, 2017
Sanquin Spring Seminars 2017 on 'Iron metabolism and anemia'
Amsterdam, The Netherlands
http://www.sanquin.nl/en/research/sanquin-spring-seminars/

May 16-17
IPFA/PEI 24th International Workshop
Zagreb, Croatia

June 17 - 21, 2017
27th Regional Congress of the ISBT
Copenhagen, Denmark
More information will be published soon

November 25 - 28, 2017
28th Regional Congress of the ISBT
Guangzhou, People's Republic of China
More information will be published soon

ISBT SEASON'S GREETINGS 2016

With best wishes for a successful 2017!

From the ISBT President, Board of Directors & ISBT Central Office

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