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Blood Donor recruitment and research

World Blood Donor Day

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Contents

President Martin L. Olsson **Secretary General** Gwen Clarke **Executive Director** Judith Chapman
Design drukkerij Teewes **Photography** Transfusion Today **Advertising** communication@isbtweb.org

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

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Judith Chapman

Editorial

June 14 is World Blood Donor Day with this year's slogan of "Safe blood for all". The theme is designed to inspire more people to become blood donors and donate blood regularly. Sustainable national blood supplies are dependent on regular donors to ensure that there is sufficient blood to meet the needs of all patients requiring transfusion. Each of us can be part of this campaign by encouraging friends and family to donate.

ISBT Education is a platform that contains a lot of material that members can use to refresh and update their knowledge or learn about something new. All the material is free to members and some of it will enable you to obtain CME points. Last year ISBT developed the ISBT Education App, ISBT Education. It's a great resource for studying on the move; download material and access it when you are travelling or away from work, for example on your way to the ISBT congress in Basel. A list of the Toronto webcasts that have taken place over the last year is given in this issue and these are also available on ISBT Education.

And don't forget ISBT's second App, the ISBT App which contains information on ISBT and within it the congress Apps. Whether you are a delegate or not, anyone can download the Basel App. It contains all the information you need to know about the congress, programme, speakers, abstracts and more.

I hope to see many of you at the Basel congress. If you are a young professional and attending look out for special activities for Young Professionals, many of them hosted by our Young Professionals council. ISBT has been focusing on Transfusion Practitioners since the congress in London in 2015. There are two TP sessions during the Basel congress. Transfusion Practitioners have a special ISBT membership rate. Take a look at the article on the role of the Transfusion Practitioner this issue of Transfusion Today. I encourage all of you to spread the word amongst the Transfusion Practitioner community of what ISBT has to offer.

Katja van den Hurk
Head of Donor Studies, Principal Investigator on Donor Health, Department of Donor Medicine Research Sanquin Research Amsterdam, the Netherlands

Opportunities and pitfalls in blood donor research

Donor research has been on the rise since ten to fifteen years. This rise is mainly driven by an increasing awareness of the need for more evidence on effects of donation on donor health, on motivations and barriers to donating, and on donor selection criteria. Additionally, the repetitive nature of blood and blood component donations and the generally large numbers of donors result in datasets that attract (bio)statistical researchers and epidemiologists.

Opportunities

Where else can you find both behavioural and health-related data from so many people, repeatedly measured, covering such large geographical areas? Using routinely measured blood donor data for research indeed provides many opportunities. For instance, the Scandinavian Donations and Transfusions database (SCANDAT) has shown a decreased cancer incidence and mortality among donors, but also reported that this finding was likely biased by donor selection criteria.[1] At Sanquin, we assessed haemoglobin trajectories of repeat donors by fitting latent class growth mixture models on repeated haemoglobin measurement data.[2] Furthermore, blood donors make up an ideal study population especially if researchers and blood banks join forces to collect additional data, as was shown with the INTERVAL study. INTERVAL assessed the effects of various donation intervals on blood supply and donor health.[3] Apart from benefits for the field of blood transfusion, data from blood donor populations are also used for studies on general health and the development of disease.

Potential pitfalls

Several aspects must, however, be taken into account when using donor data for research. An example is the use of data that were obtained outside the context of research. Formal data quality assessment procedures to determine the conformness, completeness and plausibility of donor registry data are usually not carried out routinely.[4] Additionally, the large sample sizes with many repeated observations may result in significant – but irrelevant results. This underlines the importance of using underlying theory and caution when interpreting results.

Another challenge is the so-called 'Healthy Donor Effect' (HDE), which implies that donors are a selected, 'healthier', sample of the general population because of donor selection procedures and self-selection by the donor. This type of selection bias complicates research where donors are compared to non-donors to investigate the health effects of donation, because these effects cannot easily be distinguished from donor selection effects. Alternative approaches, comparing donors with more- versus less-frequent donations, or with a long versus a short donor career, may be less biased. Nonetheless, a risk remains of attributing observed health differences to the effects of donation while these differences actually pre-existed and determined whether a donor stopped or kept on donating.[5] A randomized controlled trial with a control group not donating would be a step forward to better study health effects of donation as HDE is minimized.[6] Challenges to this approach are the large sample size and long follow-up needed to assess potentially small and long-term effects of donation, as well as difficulties of blinding participants and observers. In observational studies, the main challenge is to adjust for confounding without over-adjustment for intermediate effects that were caused by preceding donations.

In conclusion, blood donor data are a valuable source of information for research on donor health and behaviour, as well as on the development of disease. Careful decisions and assessments of study designs, data quality, data analyses and results are key to ensure the validity and applicability of donor research.

1 Edgren G, Hjalgrim H: Epidemiology of donors and recipients: lessons from the SCANDAT database. Transfus Med 2019; 29 Suppl 1: 6-12.
2 Nasserinejad K, van RJ, van den Hurk K, et al.: Prevalence and determinants of declining versus stable hemoglobin levels in whole blood donors. Transfusion 2015; 55: 1955-63.
3 Di Angelantonio E, Thompson SG, Kaptoge S, et al.: Efficiency and safety of varying the frequency of whole blood donation (INTERVAL): a randomised trial of 45 000 donors. Lancet 2017.
4 Kahn MG, Callahan TJ, Barnard J, et al.: A Harmonized Data Quality Assessment Terminology and Framework for the Secondary Use of Electronic Health Record Data. EGEMS (Wash DC) 2016; 4: 1244.
5 Van den Hurk K, Zalpuri S, Prinsze FJ, et al.: Associations of health status with subsequent blood donor behavior-An alternative perspective on the Healthy Donor Effect from Donor InSight. PLoS One 2017; 12: e0186662.
6 Van den Hurk K, van Kraaij MGJ, Zalpuri S: Lessons from the INTERVAL study. Lancet 2018; 391: 2604-5.

Barbara Masser
Australian Red Cross Blood Service Chair in Donor Research
School of Psychology
The University of Queensland
Australia

Alison Gould
Scientific Communications Specialist, Research and Development
Australian Red Cross Blood Service
17 O'Riordan St Alexandria NSW
Australia

Donor research across the world

In the 13 years since Shelia O'Brien1 wrote about the need to focus on donors, research activity has increased substantially. Today, researchers world-wide focus on the key questions of what motivates someone to become and remain a donor and what keeps our donors healthy and happy. Their efforts span a diverse range of disciplines including psychology, sociology, marketing, public health, epidemiology and biostatistics.

More than altruism

We now know that most of our donors are not selflessly altruistic, but instead respond to the emotional reward that comes from donating. However, we are still working on how we can effectively apply these insights in practice.
Challenges in various locations range from determining how to convert family-replacement donors into voluntary non-remunerated donors, through to how we can best remind donors of the warm glow they feel after donating to help bring them back, to understanding how blood operators can best use non-monetary incentives in a voluntary system. For example, recent research by the German Red Cross Blood Donation Service2 shows that offering a comprehensive health check results in a significant improvement in the retention of established donors.

New ways of thinking

The diversification of our disciplinary base has resulted in new ways of thinking about donors and their behaviour. For example, sociologists at Sanquin in the Netherlands have begun examining how context shapes donor behaviour. Research taking this more holistic approach has already challenged some of what we thought to be true. Specifically, a recent multi-level analysis led by Eva-Maria Merz3 overturned previous thinking that more experienced donors are more likely to return to donate again. Rather, even donors with few lifetime donations are as likely to present as more experienced donors if the process is pleasant and convenient.

Identifying and helping donors at risk

Taking a broader perspective has identified ways to optimise operations to help our donors. For example, researchers have found ways to identify those most at risk of vasovagal reactions and to prevent such reactions.
Chris France's lab in Ohio, U.S. has shown that the simple question 'how afraid are you of having blood drawn from your arm?' provides important safety information. Donors who answer anything other than 'not at all' are significantly more likely to react than those with no fear4. In Australia, we have identified that asking donors to apply muscle tension during needle in, out, and when getting up (rather than continuously) results in greater compliance, and fewer vasovagal reactions5. Such insights pave the way for procedures that optimise the donation experience and promote donor retention.

Big data and long-term donor health

Large-scale data linkages such as the Scandinavian Donations and Transfusions database5 allow us to see, for the first time, how donor behaviour relates to long-term donor health and wellbeing at a population level. However, this progress presents a range of new research challenges, the most pressing of which is how to effectively communicate health information to our donors while maintaining their engagement.

As we move to a more personalised approach to the matching of donors and patients, the challenges for donor research around the world will evolve once again. Our maturing discipline will need to identify how to engage in segmented or personalised approaches to donors, at the same time delivering on the core challenges in the the day-to-day operations of collection agencies. However, our growing interdisciplinary focus means that we are well placed to meet these challenges head-on.

References:

[1]O'Brien, S. F. (2006), Donor research: the foundation for a healthy blood supply. Transfusion, 46: 1069-1071. doi:10.1111/j.1537-2995.2006.00887.x
[2]Lepnitz, S., de Vries, M., Clement, M., & Mazar, N. (2018). Providing health checks as incentives to retain blood donors — Evidence from two field experiments. International Journal of Research in Marketing, 35(4): 628-640. https://doi.org/10.1016/j.ijresmar.2018.08.004
[3]Merz, E. , Zijlstra, B. J. and Kort, W. L. (2017), Blood donor show behaviour after an invitation to donate: The influence of collection site factors. Vox Sang, 112: 628-637. doi:10.1111/vox.12562
[4]France CR, France JL, Frame-Brown TA, Venable GA, Menitove JE. Fear of blood draw and total draw time combine to predict vasovagal reactions among whole blood donors. Transfusion. 2016;56(1):179-185. doi:10/gft6mj
[5]Thijsen A, Gemelli CN, Davison TE, O'Donovan J, Bell B, Masser B. Does using applied muscle tension at strategic time points during donation reduce phlebotomist- and donor-reported vasovagal reaction rates? A three-armed randomized controlled trial. Transfusion. 2018;58(10):2352-2359. doi:10.1111/trf.14940
[6]Edgren, G. , Rostgaard, K. and Hjalgrim, H. (2017), Methodological challenges in observational transfusion research: lessons learned from the Scandinavian Donations and Transfusions (SCANDAT) database. VOXS, 12: 191-195. doi:10.1111/voxs.12342
not evidence based. Transfusion. 2015 January; 55: 199-204.

Gracinia Lim
Senior Manager, Marketing & Communications at Red Cross Youth, Singapore

Donor recruitment through social media in Singapore

Singapore – a tiny island of 5.64 million[1] with a population density of 7,804 per sq km, has one of the highest number of internet users with 4.92 million connected online. According to the Global Digital Report 2019 by We Are Social[2], 79%[3] of those accessing the internet use social media for slightly over 2 hours on average per day[4].

With these growing trends in mind, the Singapore Red Cross' Blood Donor Recruitment Programme, together with the Blood Services Group of the Health Sciences Authority, has shifted our marketing strategy to what most Singaporeans spend time on – social media, particularly YouTube, Facebook, and Instagram[2]. The objectives of our digital social media strategies are multi-fold with an emphasis on Awareness (raising awareness of the importance of blood donation, debunking myths, driving footfall to our blood banks), Conversion (converting casual browsing on social media into actual appointment booking), and Retention of existing blood donors.

Streamlining social media strategies within a budget

Our team identified user behaviours and patterns on each social platform and created content that was creative and relevant. We largely focused our awareness and conversion targets on Facebook and Instagram. With these interlinked platforms, we consciously explored various executions (carousel formats, static images) that would work for both platforms, and designed teasers that would pique viewers' interest. We also created fun bite-sized animation videos to educate and debunk myths which could be re-executed as pre-roll videos to be played on YouTube. With most users using Google as a search platform with the intent of donating blood, it became our tool for conversion and retention.

A very powerful tool exists in the form of remarketing on these platforms. It allowed us to redeploy content to users who had seen or interacted with them, but had yet to complete their "journey" to make an online appointment with us. This tool allowed us to continue our conversation with potential donors and/or due donors, thus keeping our content relevant and visible in their social media feed.
Hashtags were also a good way of identifying and keeping track of user generated content. In Singapore, we had kick-started #givebloodsavelivesSG – a hashtag with a simple self-explanatory call-to-action.

Rising social media trends: content driven by new entertainment media

More interestingly, with the rise of a new wave of social content aggregators - such as 9GAG, Vice and BuzzFeed which combine news with entertainment using wit and humour - we had engaged Singapore's very own SGAG to create a series of video content that youths can relate to. The results were very encouraging. Over 375,000 unique views were recorded within two weeks, reaching youths who had otherwise been unreactive to blood donation content online.

TL;DR (Too Long; Didn't Read)[5]

The attention span of humans has declined to less than 9 seconds according to a 2015 study done by Microsoft[5] due to information overload. As the world continues to embrace social media, and with endless information at the tip of their fingers (literally), recruiting blood donors via these platforms is not just advisable, but essential.

[1] Source: Population and Population Structure. (2018). Retrieved from Department of Statistics Singapore: https://www.singstat.gov.sg/find-data/search-by-theme/population/population-and-population-structure/latest-data
[2] Source: We Are Social. (2019). Digital in 2019 Singapore. Retrieved from We Are Social: https://wearesocial.com/sg/digital-2019-singapore
[3] Social media users in Singapore is 4.60 million, with a 79% penetration.
[4] Average time spent per day on social media is 2 hours and 8 minutes per day, out of an average of 7 hours and 2 minutes spent on the internet daily.
[5] Source: What does tl;dr mean? (2019). Retrieved from Dictionary.com: https://www.dictionary.com/e/acronyms/tldr
[6] Source: McSpadden, K. (2015). You Now Have a Shorter Attention Span Than a Goldfish. Retrieved from Time.com: http://time.com/3858309/attention-spans-goldfish/

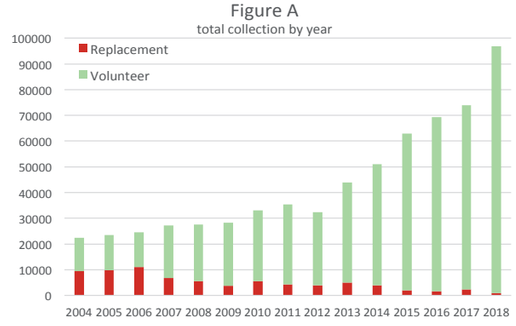
Dr Thida Aung
Deputy Director General
Department of Medical Services
Ministry of Health and Sports
Myanmar

Challenges of blood donations in Myanmar

According to the strategies of the World Health Organization, safe blood transfusion services must be based on carefully selected voluntary donors who are from low risk life style.
In Myanmar, blood transfusion services are attached to the hospital laboratories except the National Blood Center. Around the country, more than 400 hospital laboratory attached blood banks are practicing. Because of the nature of the organization structure, systematic donor recruitment can't be established.
Due to the interest of the general public, transfusion services can support 72.04% of voluntary donations for total annual needs of 4,38,346 donations in 2018, in spite of lack of a systematic donor recruitment program. Out of 7 states and 7 regions, most of the tertiary health care services are available in Yangon and 20 government hospitals are now practicing in this region. In 2018, a total of 1,40,409 donations were collected in Yangon which was about 32% of the whole country collections.
As of the end of 2018, the National Blood Center covers 69.03% of total blood collections in the whole Yangon region, 99.05% of which are voluntary donations. The remaining 0.95% is categorically "replacement" collections but most of them are fresh whole blood required by cardiac surgeries.

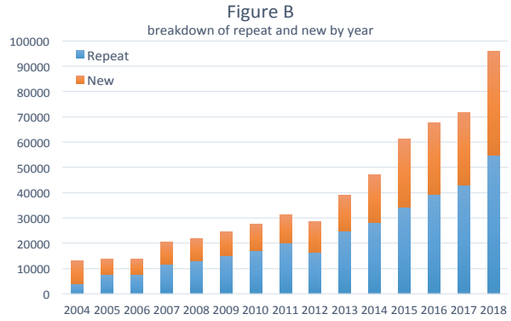
As Figure A shows, in the National Blood Center, the increment of blood collection in 2018 against 2016 was 40% while achieving 99.05% of that was from voluntary donation. The voluntary collection ratio in 2004 was only 58%.

Figure A
total collection by year



As Figure B shows, increment of voluntary donation is coming from both new donors and repeat donors. Increment of new donors in 2018 against 2016 was 45%, and increment of repeat donors for the same period was 39%.

Figure B
breakdown of repeat and new by year

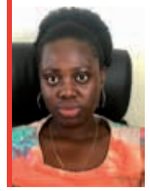


In 2017, the National Blood Center created two new functional departments. The first one is Corporate Donor Recruitment Department, and it is responsible for recruiting mid to large size corporations as new group blood donors. The second one is Call Center, and it is tasked to give reminders to all eligible existing individual donors. Call Center is also promoting birthday blood donation to all eligible donors. We acquire new donors by group donation events and we turn these new donors into periodical repeat donors by calling individuals. This strategy has been working well so far. The next step for the National Blood Center is to cover all demand for the entire Yangon region. With an additional 45,000 collections, this can be achieved.
The big challenges as of now are sustainability of recent situation of Voluntary donations in the National Blood Center and lack of systematic organization structure of other blood banks.
We are trying to set up the policy for nationally coordinated blood transfusion services based on voluntary donations by implementing regional blood centers in all states and regions to turn the rest of country to the same direction.

Women and blood donation in Sub-Saharan Africa

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

Joana Pokua Gyimah
Health Research Officer
National Blood Service Ghana



Background
There is chronic shortage of blood for transfusion in most Sub-Saharan African countries (SSA). This translates into the lack of blood for emergency transfusions, and poses a real problem in the SSA region where children and women around childbirth are the major recipients of blood and blood products. In addition, although most SSA countries base their policies on the achievement of 100% voluntary non-remunerated blood donation, voluntary donors are uncommon, and family/replacement blood donors provide up to 80% in some countries (Allain and Sibinga, 2016) of blood. Reasons for blood shortages include unwillingness to donate because of several misperceptions, lack of effective management systems, lack of resources, and lack of research to support efforts to increase donations among others.

One important factor that contributes to the inadequate supply of blood is the underrepresentation of women. For example, in Ghana (NBS Ghana, 2018) and Senegal (Duboz et al. 2010), women constitute 23% and 33% of blood donors respectively, although women form a high proportion of adult populations in these countries. Factors that influence blood donation among women include the socio-cultural environment and medical reasons.

A group of family/replacement blood donors at the Southern Area Blood Centre of the NBS Ghana

Influence of the socio-cultural environment
Blood donation behaviour is generally influenced by factors that encourage or discourage the blood donor. Such factors include universal factors such as fear of needles, the sight of blood, and inconvenience. In addition to these universal factors, in SSA a person's decision to donate is also significantly influenced by socio-cultural environment. In this regard, the unwillingness to donate blood among populations in SSA has been attributed to factors such as myths and misperceptions, cultural beliefs, and traditional practices (Asamoah-Akuoko et al., 2017). There is a widespread perception in SSA that women should not/cannot donate blood. This perception is based on the beliefs that blood donation could make a woman stop menstruating and make it impossible for her to become pregnant and have children. Women are generally perceived to be weaker than men and less physically fit, and therefore more affected by the perceived negative effects of blood donation. Gender inequality is a prevalent issue in SSA, so women are more likely to have no economic independence, and require the permission of their partners to donate blood.

Medical and physiological factors
Anaemia is a common cause of blood donor deferral in SSA, and a significant proportion of all prospective blood donors would be deferred for low haemoglobin. Generally, higher proportions of prospective females (34.6%), as compared to males (25.5%), are deferred with the most frequent cause of deferral among females (34.6%) being anaemia (NBS Ghana, 2018). Deferrals during menstruation, pregnancy and breast-feeding also contribute to the smaller proportions of women that donate blood in SSA.

The way forward
Considering the proportion of women among the population SSA, their active involvement in blood donation is likely to increase the supply of blood. Targeted recruitment approaches that address the myths and misperceptions about blood donation, as well as the high prevalence of anaemia and iron depletion among prospective female blood donors are important for the recruitment of more female donors while ensuring that they are not harmed by donating blood. Such interventions could include education on myths and misperceptions, nutritional interventions to prevent anaemia, and timely diagnosis and appropriate management of anaemia. Certainly, increasing the proportion of women in the SSA who donate blood is a necessity.

References
1. NBS Ghana. (2018). Analysis of SABC blood donation summary: data generated from blood safety information system. Accra.
2. Duboz, P., Macia, E. & Cunéo, B. (2010). Sociodemographic and attitudinal factors to blood donation in the urban population of Dakar, Senegal. Transfusion, 50(12), 2713–2720. Retrieved from https://doi.org/10.1111/j.1537-2995.2010.02750.x
3. Asamoah-Akuoko, L., Hassall, O.W., Bates, I. & Ullum, H. (2017b). Blood donors' perceptions, motivators and deterrents in Sub-Saharan Africa - A scoping review of evidence. Br. J. Haematol, 177(6), 864–877. Retrieved from https://doi.org/10.1111/bjh.14588
4. Allain, J. P. & Sibinga, C. T. S. (2016). Family donors are critical and legitimate in developing countries. Asian J Transfus Sci, 10(1), 5–11. doi: 10.4103/0973-6247.164270

Ms. Maame Kwaaba Stephens, the Brand Ambassador for voluntary blood donation, National Blood Service Ghana

Ms. Noeline Kumor, a multiple time blood donor, donating during a special event blood donation awareness campaign, the "March March" in Aburi, Ghana.

Dear ISBT members,

You are holding another issue of Transfusion Today in your hands and this issue is devoted to Blood Donor recruitment and research, a field that has developed and grown in importance over the years. Looking at the scientific literature, or for that matter our own ISBT congress sessions, the increase in quality of output and number of people involved is impressive. Included in our June issue, you will find interesting articles on topics including Donor Research Across the World, Donor Recruitment Through Social Media in Singapore, Women and Blood Donation in Sub-Saharan Africa and more.

In my previous column, I mentioned that one of ISBT's major current challenges is to find a suitable replacement for our Executive Director, who will end her more than 11 years of service for ISBT on March 31, 2020. We have undertaken a search led by a head-hunting firm, gone through several rounds of CV scanning and preliminary phone interviews.
A second round of phone interviews of short-listed candidates was conducted by one of our Vice Presidents, the Treasurer, our Scientific Officer at the Central Office and myself. Finally, an appointment committee consisting of the Past President, the President-Elect, the Secretary-General and myself interviewed two top candidates and agreed to offer the job to one of them.

I am now very happy to announce the appointment of Jenny White as ISBT's new Executive Director from April 1, 2020. Jenny has a solid background in transfusion medicine and a large international network, as well as experience as Scheme Manager and Deputy Director at UK NEQAS. She has also been a consultant for WHO on and off for two decades and is a long-term member of ISBT. Please join me in welcoming Jenny to her new job, where she will help leading ISBT into the future. Find out more about Jenny White in a feature article about her in an upcoming issue of Transfusion Today.

To ensure a smooth transition, Jenny has agreed to spend a few days in the office in May and December and take part in crucial activities during the coming year, thereby taking advantage of Judith's long experience in the role. This includes preparation for upcoming congresses, taking part in strategic planning, and preparing for the 2020 election of board members.

With this important piece in place, the Board will continue the work started in 2018 with the new strategic plan. During two days prior to the ISBT Regional Congress in Basel, the whole Board will focus on the future and develop a plan for the next few years. If you have ideas and thoughts crucial for a sustainable and successful ISBT, I encourage you to send them to our Central Office (office@isbtweb.org, e-mail heading: "Strategy", June 16, 2019 at the latest) so that we can consider them in this work for the Society.

In closing, I hope you have renewed your membership, and I wish you a great year with ISBT. Do not forget to join us in all the activities we offer, like journal clubs, webinars, the education portal and the new app etc. And of course, take the chance to keep yourself updated while (re)connecting with new and old colleagues during our legendary congresses – this year both in Basel this month and Bangkok in November.

Martin L Olsson
ISBT President

Welcome to our new members
(March 2019 - May 2019)

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- **CONGO:** SamclideMbikayi Mutindu, Natacha Ndalingosu
- **GHANA:** Shadrach Amoah Sakyi, Richard Appiah-Badu, Joana Pokua Gyimah, Stella Manu, Frank Kofi Vidigo
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- **SOUTH AFRICA:** Nitesh Juganath, Caroline Hilton, Thabo Lefakane, Charlotte Pistorius, Nicolene Benjanita du Toit, Jonathan Louw
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- **IRAN:** Sedigheh Amini-Kafiabad
- **KUWAIT :** Hanan Juhail, Abdulhamid Ghadanfar
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- **SWITZERLAND:** Simone Braunschweller, Alberto Hernandez, Sabine Locher, Amnada Harrison, Ysabelle Knill, Patrick Kehl, Julia Erler, Nadja Widmer, Philippe Kolly, Georgios Gergiou, Young-Lan Song
- **TURKEY:** Levent Sagdur, Soner Yilmaz
- **UKRAINE:** Dmytro Ledin, Nataliia Pozhydaieva, Muliarchuk Oksana
- **UNITED KINGDOM:** Theodora Foukaneli, Richard Haggas, Reginad Clayton, Katy Veale, Chelsea Ridsdale, Helen Wilkinson, Eamonn Ferguson, Naim Akhtar

South East Asia
- **BANGLADESH:** Tamanna Afroz
- **CAMBODIA:** Bora Pheng
- **INDIA:** Soma Agrawal, Apalak Garg, Romesh Jain, Dhivya Kandsamy, Onkar Singh, Shweta Talati, Ankur Kataria, Gian Kataria, Keerti Angampally, Seema Dua, Somnath Mukherjee, Madhan Kumar Bollipalli Krishnamoorthy
- **INDONESIA:** Tika Adilistya, Susiana Gunawan, Ika Hariyani, Teaku Ilhami Surya Akbar, Rina Mulyani, Muktimanah A Djuhjar, Anna Astuti, Asvin Nurulita Yulis, Leni Lismayanti, Ludi Dhyani Rahmartani
- **MONGOLIA:** Erdenebayar Namjil
- **MYANMAR:** Su HlaingOo, Sein Win, Shwesin Sanaung, Myat MyatThin, Khin Mya Mon

Western Pacific
- **AUSTRALIA:** Anna Bousounis, Sophie Goodchild, Khai Li Chai, Claire Styles, Denise Herbert, Surendra Karki
- **CHINA:** Ran Tian, Xuemei Fu, Xuechuan Zou, Qin Tang, Yuanhu Wang, Yang Yang, Huan Wang, Junkai Lin, Lei Hou, Jingye Tan, Xin Huang, Zhijian Xie, Rebecca Liu, Yinglin Ma
- **JAPAN:** Atsushi Shirakami, Kiyoko Nojima, Hisashi Wakita, Tadashi Matsushita
- **MALAYSIA:** Mugunthan M Sathival, Julia Abdullah, Sally Tsuey Peng Lam, Wan Asmuni Wan Mohd Saman, Wan Suriana Wan Ab Rahman
- **SINGAPORE:** Ping Ying Heng, Johanna Mustaffa, Sijia Situ, Joanne Koh, Tsyr Jong Lim, Xiaomin Zhang, Hong Chang, Chun-Hua Pai, Eileen Goh
- **SOUTH KOREA:** Moon Seob Kim, Eun Young Kim, Donghwan Hwang, Sunmi Shin, Bothina Abdelhamid, Sinyoung Kim
- **VIETNAM:** Huu Vi Nguyen, Le nhat Minh, Hoang Oanh, Ngoc Anh, Duy Thang Nguyen, Ha Huu Nguyen, Pham Tuan Duang, Nguyen Thanh Van Phan

Membership renewal:
Time is almost up - deadline June 30, 2019

It is still not too late to renew your membership for the new membership year. The membership year started on April 1, 2019 and will run until March 31, 2020. The good news is; membership fees are unchanged from last year. Continuing your membership gives you the opportunity to be part of our growing transfusion medicine community. Keep enjoying all benefits and renew now!

7 reasons to renew your membership:

1. Free access to ISBT Education: here you have access to congress webcasts, past webinars, learning quizzes and much more
2. Free access to monthly webinars and Live Journal Clubs: learn about various topics presented by experts in the field
3. Registration discounts for ISBT congresses
4. Free access to ISBT's Vox Sanguinis and the ISBT Science Series
5. Free access to the ISBT Forum: network with colleagues and experts in your field
6. Free receipt of our quarterly magazine Transfusion Today
7. Expand your network and be part of a global community

How to renew?
Login on the ISBT website with your email address and password. Click on 'My membership & payments' to pay your membership fee for 2019/2020.

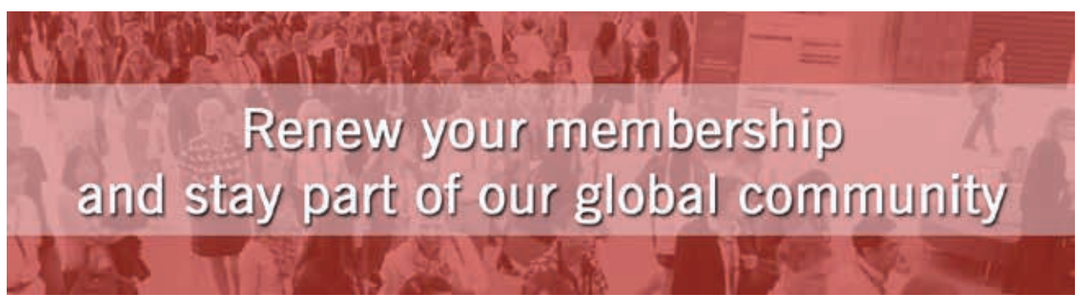
Personal preferences
To keep up to date with ISBT Education and information on webcasts, the online webinars, live journal clubs and congresses make sure you have ticked the boxes at the end of your personal details.

Don't miss out!
Renew your membership before June 30, 2019 to continue your membership for 2019 - 2020. After June 30 members who have not renewed will no longer have access to all ISBT membership benefits.

Questions?
Most of the answers can be found at Frequently Asked Questions on the ISBT website. For any other question regarding your membership you can send an email to membership@isbtweb.org.

We look forward to your continued membership in 2019/2020. And remember to let your colleagues know how much you are benefitting from ISBT membership.

Transfusion Practitioners and Allied Health Professionals
Don't forget ISBT's special membership rates ranging from €30 to €60 for these two groups of professionals. See the ISBT website for details.



2018 Vox Sanguinis Best Paper Prize

The Vox Sanguinis Best Paper Prize is for the best original paper that has been published in ISBT's journal Vox Sanguinis in the previous calendar year. The editors of Vox Sanguinis compile a list of papers that qualify for this Prize. The Jean Julliard Prize committee review and score all of the manuscripts and award the prize. The 2018 prize goes to M Möller for his paper "Thorough analysis of unorthodox ABO deletions called by the 1000 Genomes project" Möller M, Hellberg Å, Olsson ML Vox Sanguinis 2018;113:185-197.

Other papers shortlisted for the prize were
Brailsford SR, Tossell J, Morrison R, McDonald CP, Pitt TL. Failure of bacterial screening to detect Staphylococcus aureus: the English experience of donor follow-up. Vox Sanguinis. 2018;113:540-546.

Budde H, Papert S, Reichardt HM, Jarry H, Riggert J, Legler TJ. An alternative for extracorporeal photopheresis: 8-methoxypsoralen and UVA-treated leucocytes from allogeneic donors improve graft-versus-host disease in mice. Vox Sanguinis 2018;113:803-10.

Didriksen M, Rostgaard K, Grønbaek K, Pedersen OB, Titlestad K, Erikstrup C, Nielsen KR, Edgren G, Ullum H, Hjalgrim H. Epidemiology of chronic red-cell transfusion recipients in Sweden and Denmark - a 10 year follow-up study. Vox Sanguinis 2018;113:770-778.

Dyer C, Alquist CR, Cole-Sinclair M, Curnow E, Dunbar NM, Estcourt LJ, Kaufman R, Kutner JM, McCullough J, McQuilten Z, Potiphar L, Rioux-Masse B, Slichter S, Tinmouth A, Webert K, Yokoyama AP, Stanworth SJ. A multicentred study to validate a consensus bleeding assessment tool developed by the biomedical excellence for safer transfusion collaborative for use in patients with haematological malignancy. Vox Sanguinis 2018; Apr;113(3):251-259.

Lin Y, Cohen R, Armali C, Callum J, Cserti-Gazdewich C, Lieberman L, et al. Transfusion-associated circulatory overload prevention: a retrospective observational study of diuretic use. Vox Sanguinis. 2018 May;113(4):386-92.

Möller M, Hellberg Å, Olsson ML. Thorough analysis of unorthodox ABO deletions called by the 1000 Genomes project. Vox Sanguinis 2018;113:185-197.

Wikman A, Jalkesten E, Ajne G, Höglund P, Mörtberg A, Tiblad E. Anti-D quantification in relation to anti-D titre, middle cerebral artery Doppler measurement and clinical outcome in RhD-immunized pregnancies. Vox Sanguinis 2018 Nov;113(8):779-786.

Wood B, Johnson L, Hyland RA, Marks DC. Maximising platelet availability by delaying cold storage. Vox Sanguinis 2018; 113, 403–411.

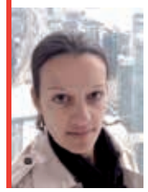
ISBT Award Basel

There will be two recipients of the ISBT Award during the opening ceremony of the 29th European Regional congress of the ISBT in Basel, Switzerland

Ellen van der Schoot is given the award for her service as ISBT's second Scientific Secretary for the period 2015 – 2018 and for the way she provided young investigators a platform to share their research and expand their international network. The Executive also recognised her extensive contribution to the international community of immunohematology and transfusion medicine, including your efforts to introduce cell-free fetal DNA typing and innovative molecular typing methods in immunohematology laboratories.

Roger Dodd is given the award for his substantial contribution to the furtherance of the objectives of ISBT and transfusion medicine. He has served in numerous leadership positions in ISBT including Chair of two Working Parties and as Vice President, 2010-2014 and Secretary General, 2014-2018. Notable achievements include being involved in the expansion of the ISBT Academy programmes, the rewriting of the Statutes and Bylaws and the restructuring of the Code of Ethics as well as being a member of the small task team looking into the ISBT membership categories with the outcome of more membership categories with additional benefits for members.

Results of the survey on ISBT Young Professionals and their needs



Cécile Toly Ndour
French National Reference Centre of Perinatal Hemobiology (CNRHP), Paris, France
Member of the ISBT Young Professional Council

In order to identify the needs of the young members to improve the value of the ISBT membership, the Young Professionals (YP) Council designed an online survey that was circulated to all members over a 3 month period between December 5th, 2018 and Feb 28th, 2019.

Who have responded?
A total of 79 ISBT YP (≤ 40 years) participated in the survey. They represent 22% of the total YP ISBT members. They come from all around the world (see figure 1).

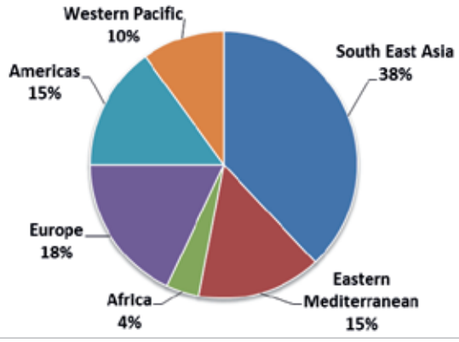


Figure 1. Geographical distribution of the YP who have participated in the survey

They work in different fields but mainly in clinical transfusion (25%) or in the field of immunohaematology (26%), as physicians, students or researchers.
Over half of the participants (57%) were in their first year of membership.

Why have they chosen to become a member of ISBT?
The YP become ISBT members for numerous reasons, few of the most important seemed to be the continued education through workshops, webinars, journal club, and the ISBT Education App (74%), networking opportunities (60%) and career development (54%).

A number of the responding YP were also members of an ISBT working party (18%).
A large proportion of the YP have heard of the ISBT programs / activities (i.e. the Young Investigator Breakfast (62%), the Harold Gunson Fellowship (66%), the YP workshops (46%) during Congresses, the ISBT education App (51%), the webinars and live journal clubs (80%) and the Academy Support (27%)). About 38% have downloaded the ISBT Education App and 48% have already attended an ISBT webinar or Journal Club.

Are they satisfied with their ISBT membership?
Most of the participants (85%) were satisfied with their ISBT membership.

What are their needs?
The survey results identified several needs (see figure 1), including:
- Mentorship programs for YP
- More workshops tailored for YP during Congresses

They also highlighted a desire of greater social/networking opportunities, with:
- Creation of a forum dedicated for YP on the ISBT website
- Enhanced engagement through social media

Several participants also underlined the need to expand the opportunities of membership and Congress attendance for members from low income countries.

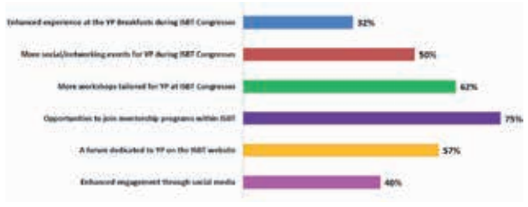


Figure 2. Benefits that the YP would like to receive from their ISBT membership

The YP council is trying to address some of these needs (improving YP experience, organizing workshops and social activities) with the Board for the Basel and Bangkok Congresses taking place in Basel (June) and Bangkok (November) this year. A proposal for a mentorship program has also been submitted to the Board.

As a reminder, a special hashtag (#ISBTYoungBlood) has already been created for YP on the ISBT Twitter, Facebook and LinkedIn social media accounts.

If you are a YP ISBT member and have other ideas of initiatives that could be taken up by the council, please feel free to contact us (cecile.toly-ndour@aphp.fr or arwa.alriyami@gmail.com (chair)).

Alexander Vlaar
AMC Amsterdam
The Netherlands

Jo Wiersum
TRIP
The Netherlands

Important work on the definitions for transfusion-associated circulatory overload (TACO) and transfusion-associated acute lung injury (TRALI)

Readers of Transfusion Today were reminded in the last issue about the importance of transfusion reactions including those with respiratory complications - Transfusion-associated circulatory overload (TACO) and Transfusion-related acute lung injury (TRALI). These two complications are among the leading causes of transfusion-related mortality and morbidity worldwide. Two separate groups have been working on improved definitions for these complications of blood transfusion.

Firstly, the TACO definition was revised according to the ISBT haemovigilance working party's formal definitions process and is now publicly available on the working party's web page. The revised definition, developed jointly by representatives of ISBT, the International Haemovigilance Network (IHN) and AABB (formerly the American Association of Blood Banks), was tested in a two-phase validation study for use in haemovigilance. Cases were gathered from 16 haemovigilance systems and participation included 47 experts from 20 countries.1 Whereas cases classified as TACO by individual national haemovigilance systems often did not meet the criteria for TACO using the former (2011 ISBT-IHN) TACO definition2, application of the newly revised definition resulted in better agreement. Overall there are more combinations of signs and symptoms which can add up to meet the criteria and it is easier for a case to qualify if no chest X-ray has been performed. Also the new definition allows for cases to be classified as TACO if features arise up to 12 hours after the end of transfusion, as opposed to 6 hours using the former definition.

Secondly, a group of international experts on TRALI, including members with haemovigilance expertise, one recommended by AABB and one by the ISBT based on their TRALI expertise, used a Delphi panel approach to develop a redefinition of TRALI by modifying and updating the 2004 definition.3 In the past decade, research in the area of TRALI has resulted in better understanding of its pathophysiology and in the successful implementation of TRALI mitigation strategies. The main modifications and updating of the TRALI definition are 1) In the redefinition, the term "possible TRALI" has been dropped 2) The terminology of TRALI type I (without an ARDS risk factor) and TRALI type II (with an ARDS risk factor or with mild pre-existing ARDS) is proposed. Hence the presence of mild ARDS does not exclude the development of TRALI. Cases with an ARDS risk factor which meet ARDS diagnostic criteria and where respiratory deterioration over the 12 hours prior to transfusion implicates the risk factor as causative should be classified as ARDS 3) The 2012 updated ARDS consensus definition (referred to as the BERLIN definition) has been evaluated for its relevance to TRALI and essential updates (including guidance in diagnosing hydrostatic pulmonary edema) have been incorporated in the new TRALI definition.

The Delphi panel recommended that all pulmonary complications after blood transfusion should be reported to the transfusion service and then categorized into one of several categories: TRALI (type I or type II), ARDS, TACO, TRALI/TACO if they cannot be distinguished or occur simultaneously, or an alternate diagnosis. Importantly, the panel reaffirmed that TRALI remains a clinical diagnosis and does not require detection of cognate leukocyte antibodies.

The publishing of the two sets of updated definitions paves the way for haemovigilance systems and researchers to test and critically evaluate them in their practice of assessing all types of reported respiratory transfusion complications. This will lead to new evidence – possibly requiring further revisions of the definitions in the future - and contribute to better prevention and treatment of patients receiving blood transfusions.

1. Wiersum-Osselton JC, Whitaker B, Grey S, et al. Revised international surveillance case definition of Transfusion-associated circulatory overload (TACO): a classification agreement validation study. Lancet Haematology 2019; forthcoming
2. Bolton-Maggs PHB (Ed), Poles D, Watt A, Thomas D and Cohen H on behalf of the Serious Hazards of Transfusion (SHOT) Steering Group. The 2012 Annual SHOT Report (2013) https://www.shotuk.org/wp-content/uploads/myimages/SHOT-Annual-Report-20121.pdf
3. Vlaar APJ, Toy P, Fung M, et al. A consensus redefinition of transfusion-related acute lung injury. Transfusion. 2019 Apr 16. doi: 10.1111/trf.15311. [Epub ahead of print]

The role of the Transfusion Practitioner 2018

Linley Bielby
Linley Bielby
Blood Matters
Australia

Rachel Moss
Great Ormond Street Hospital for Children
United Kingdom

In Transfusion Today Number 109 (December 2016), the ISBT Transfusion Practitioner Steering Group wrote about the role of the Transfusion Practitioner. In the intervening 18 months, the Transfusion Practitioner role has gained momentum within ISBT, and Transfusion Practitioner sessions are now an established part of the ISBT congress meetings. However, the most commonly asked question remains, "what is a Transfusion Practitioner and what do you do?"

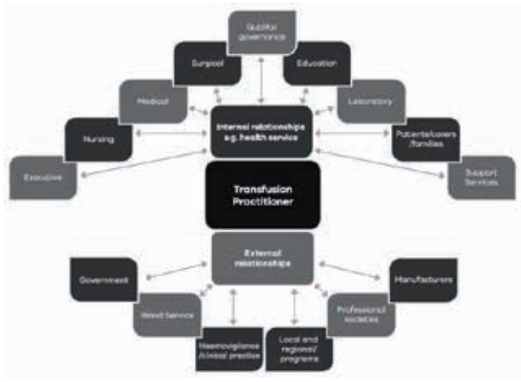
The term Transfusion Practitioner (abbreviated to TP) is an umbrella term that originated in the UK and is used internationally to describe the many and varied activities undertaken by an array of health care professionals in the areas of transfusion and patient blood management (PBM). The terms listed below are common terms that are used by countries to describe this role and these terms came from our recent ISBT survey undertaken about the TP role –

- Nurse/scientist/medical officer
- Transfusion nurse
- Transfusion safety officer
- Haemovigilance officer/nurse
- Transfusion clinical nurse consultant
- Transfusion medicine doctor
- Transfusion quality officer
- Scientist/laboratory technologist
- PBM coordinator/practitioner

TPs come from a number of different healthcare backgrounds, commonly nursing, scientific, and in some countries medical, which adds to the diverse skill sets seen in the role. As the backgrounds of the TPs are varied, so too are the activities, and the way they may undertake them varied. The activities will be driven by a combination of the TPs skills and the requirements/strategic direction of the organisation in which they work. There are skills that are common (or will develop once in the role), regardless of the professional background or organisation. These include being organised, having the ability to coordinate and facilitate projects/change, collect data, analyse data, provide education and training. One of the most important skills is having excellent communication skills as the TP role requires interaction with many different clinical areas, and multidisciplinary groups to promote best practice and instil change (Bielby et al. 2018).

This ability to communicate and work effectively as part of a multidisciplinary team is essential to undertake activities of the role. The transfusion/blood management committee is a team that plays a very important role in the support and direction of the TP and the activities they undertake. The TP is an important member of this committee, and usually play a pivotal role in the preparation of material and data discussed at these meetings; and then they are usually the one responsible for carrying out, and/or coordinating any actions from that meeting. The many and varied multidisciplinary professional relationships are shown in Figure 1 (Bielby et al. 2018).

Figure 1: Multidisciplinary relationships of the transfusion practitioner



So what are the key activities of a TP?
Much of this will depend on the needs of the organisation, however, the key activities that may be undertaken could include some or all of these:

- Policy and procedure development and implementation
- Audit development, data collection, analysis and implementation of change
- Education to clinical colleagues and patients, development of educational resources
- Haemovigilance – investigation of transfusion reactions and incidents, reporting and actioning change
- Patient blood management
- Change management
- Stewardship activities such as monitoring appropriate storage, handling and education to support best practice

The focus of all of these activities is to ensure that clinical practice aligns with state, national, and/or international guidelines and standards. The TP often provides a substantial contribution to the development of locally based policies, protocols and clinical practice guidelines, so that they reflect both best practice and local systems. Once developed and approved, part of the TP role is to make sure that all those involved in these processes have access to the information, and are aware of and understand the principles guiding safe practice. Once implemented the TP is usually the one who will audit to measure compliance.

Education is another important part of the role and is undertaken in many different ways, such as informal face-to-face conversations, situational learning opportunities, formal lectures, or perhaps the development of e-learning programme or other resources such as lanyard cards. Using many different approaches helps to engage staff and promote safe practices resulting in improved safety and experience for patients.

Over the years, TPs have found that the ability to network with colleagues is an essential element of their role. It gives TPs an opportunity to share ideas and work collaboratively to achieve common goals, whether this is a small local group of TPs meeting informally, national gatherings, or part of an international meeting such as ISBT congress. The recent ISBT meetings in London, Dubai, Copenhagen, and Toronto all held well-attended TP networking sessions that gave an opportunity for all those participating to share, discuss, learn, and educate their international transfusion/PBM colleagues. To allow this collaboration and communication to continue beyond the congresses', the TP Forum is available through the ISBT Community Forum to keep in touch with each other.

It is hoped that by further explaining "what is a TP?" and "what they do", that the important contributions they make within health is recognised, and it will provide support to those who currently do not have the role and would like to implement it. For more information please contact the authors through the TP Forum.

World Blood Donor Day June 14, 2019

The host country for the global launch of World Blood Donor Day (WBDD) will be Rwanda and the global event will be held in Kigali. ISBT will as one of the founding partners of WBDD be represented at the event.

The theme of this year's campaign is blood donation and universal access to safe blood transfusion, as a component of achieving universal health coverage. We have developed the slogan "Safe blood for all" to raise awareness of the universal need for safe blood in the delivery of health care and the crucial roles that voluntary donations play in achieving the goal of universal health coverage. The theme strongly encourages more people all over the world to become blood donors and donate blood regularly – actions which are key to building a strong foundation of sustainable national blood supplies that are sufficient to meeting the needs of all patients requiring transfusion.

The day and the theme is also a call to action to all governments, national health authorities and national blood services to provide adequate resources and put in place systems and infrastructures to increase collection of blood from voluntary, regular unpaid blood donors; to provide quality donor care; to promote and implement appropriate clinical use of blood, and to set up systems for the oversight and surveillance on the whole chain of blood transfusion.

The objectives of this year's campaign are:

- to celebrate and thank individuals who donate blood and to encourage those who have not yet donated blood to start donating;
- to highlight the need for committed, year-round blood donation, to maintain adequate supplies and achieve universal and timely access to safe blood transfusion;
- to focus attention on donor health and the quality of donor care as critical factors in building donor commitment and a willingness to donate regularly;
- to demonstrate the need for universal access to safe blood transfusion and provide advocacy on its role in the provision of effective health care and in achieving the goal of universal health coverage;
- to mobilize support at national, regional and global levels among governments and development partners to invest in, strengthen and sustain national blood programmes.

By donating blood, you can save lives!

Everyone should have access to safe blood transfusions, when and where they need them.

Safe Blood For All

World Blood Donor Day

World Health Organization

EDUCATION

Education news

Toronto webcasts and interviews
A significant benefit of being an ISBT member is access to ISBT Education and the ISBT Education App. Members have free access to 42 congress webcasts and interviews with experts (Personal Reflections) recorded at the 35th International Congress of the ISBT in Toronto. These are now available at ISBT Education. If you would like to watch these on your mobile phone or tablet, please use the Education app that is available for both Android and IOS devices. Scan the QR-code to watch these on your phone or tablet.

Here is the overview of the sessions and interviews:

Sessions	**Speakers**
Academy Day: Immunohaematology	P. Ligthart, J. Hamilton, C. Gassner
Academy Day: Cellular Therapy	M. Stoermer, D. Sipp, E. Petrisli
Academy Day: Clinical Transfusion	M. Looney, E. Fan, C. Cserti-Gazdewich
Parallel session: Donors and Donation	M. Georgieff, H. Ullum
Plenary session: Arthropod borne infections	L. Harrington, B. McMorran, E. Leftler
Plenary session: Jean Julliard Prize session	L. Fung, R. Kapur
Clinical - Patient blood management	P. Meybohm, M. Mueller, G. Simon
Plenary session: Presidential Awards	R. Dodd, H. Zaaijer, M. Busch
Major challenges of blood transfusion in military settings	M. Reade, H. Doughty
Plenary session: Platelets	J. Thon, K. Pavenski, M. Rondina
Parallel session: Problems in transfusion medicine	G. Vidarsson, R. Kapur, R. Xie, C. Cserti-Gazdewich
Parallel session: The relationship between donor characteristics and transfusion outcome	G. Edgren, R. Middelburg
Plenary session: Transfusion Medicine Past, present and future	S. Dzik, D. Starr, P. Schwille
Interviews	**Speakers**
Challenges of Blood Transfusion in resource-limited settings (in two videos)	N. Marwaha, L. Asamoah-Akuoko
Rare donor registries/programmes	V. Yahalom, T. Powley
Malaria-related blood transfusion challenges and the impact of Malaria on human health	B. McMorran, L. Harrington
Donor characteristics and transfusion outcome	G. Edgren, R. Middelburg
Neonatal and Pediatric Transfusion	A. Keir, H. New
Role of Transfusion Practitioners	Linley Bielby
Genomics and Blood Transfusion	N. Gleadall, W. Ouwehand

EDUCATION

Toronto review papers available

It is a long-standing tradition of ISBT that the invited speakers of the ISBT congresses are asked to prepare a review article based on the topic of their talk. These review articles are then published as a special congress issue in the ISBT Science Series. Here are the 22 reviews of the Toronto Congress that are now available online on the website of the ISBT Science Series:

Review title	Author(s)
Kidd blood group system: outwardly simple with hidden complexity	J. Hamilton
NONE TOO S.M.A.LL: the global challenge of severe malarial anaemia and its transfusion support	C. Cserti-Gazdewich
After 70 years, serological RhD determination remains a challenge: DNA to the rescue	M. Písacka
Getting comfortable with RH blood group system terminologies and databases	F. F. Wagner
Haemolytic disease of the fetus and newborn: advancements in precision and prevention	M. Delaney
Microbial safety of cellular therapeutics—lessons from over ten years' experience in microbial safety of platelet concentrates	M. Störmer, E. Wood, B. Gathof
Stem cell mismarketing: Implications for the transfusion community	D. Sipp
Drug-induced immune haemolytic anaemias	D. R. Branch
Patient blood management	P. Meybohm, S. Choorapoikayil, A. Regaei, M. Jung-König, K. Zacharowski
Questioning the benefit of restrictive transfusion practice in older adults	G. I. Simon, A. Craswell, O. Thom, Y. L. Fung
Immune role of platelets in malaria	B. J. McMorran
Transfusion emergency preparedness for mass casualty events	H. Doughty, R. Rackham
When things go badly – Managing quality problems and complaints in transfusion medicine	T. Vuk
The practice of transfusion and fluid bolus therapy in neonates	A. K. Keir, S. J. Stanworth
Disaster planning: the role of the transfusion practitioner	N. Marwaha, L. Asamoah-Akuoko
	R. Deelen, E. Costermans, R. Moss C. Akers
Towards a safe and sufficient blood supply in Sub-Saharan Africa	D. Kyeyune-Byabazaire, H. A. Hume
Thalassaemia in Iran: Thalassaemia prevention and blood adequacy for thalassaemia treatment	A. Akbar Pourfathollah, M. Hadipour Dehshal
Building a blood system: the view from Saudi Arabia	M. A. Badawi
Red cell transfusion thresholds in haematopoietic stem cell transplantation	A. Tinmouth, J. Tay
Can we do better? Bridging the research to practice gap in patient blood management–optimizing 'audit & feedback' and the challenges of undertaking a national cluster-randomized controlled trial	S. Stanworth, F. Lorencatto, N. Gould J. Grant-Casey, A. Deary, S. Hartley, S. McIntyre, L. Moreau, T. Morris, R. Patel, I. Smith, J. Smith, A. Farrin, R. Foy, J. Francis
Transfusion-associated circulatory overload (TACO): Time to shed light on the pathophysiology	J. W. Semple, J. Rebetz, R. Kapur
Emerging infectious diseases and blood donation	B. Kjerulff, C. Erikstrup

The 30th Regional Congress of the ISBT in Bangkok, Thailand

Prepare yourselves for Bangkok in less than five months
The 30th Regional Congress will take place in Bangkok, Thailand. We are looking forward to welcoming you to the largest and most developed city of Thailand. Bangkok is the capital city and known for its very friendly people. The city offers a unique set of characteristics for tourists. Discover the historical architecture and traditions from hundreds of years ago. Wat Arun is one of the most stunning temples in Bangkok and the design is way different from the other temples you see in Bangkok. It is situated on the west bank of the Chao Phraya River and absolutely imposing when it is lit up at night. If you have time do not forget to visit the floating markets, the Grand Palace or take a water taxi over the Chao Phraya River. Good to know: Thailand is inexpensive and the driest period in Bangkok is from November until February, this will make your stay in this city even more enjoyable.

Register and join us
Attending this congress in Bangkok will give you a great opportunity to network with other transfusion medicine specialist from the Asia Pacific region. Expand your knowledge and enjoy all benefits the congress has to offer. Register before October 10, 2019 and you will save up to €160,- for the Bangkok congress. Learn about the most relevant and recent topics in the field of Transfusion Medicine. You are invited to submit an abstract and share your work with colleagues from all over the world.

Become an ISBT member and benefit from the reduced registration fee. Further information about ISBT membership and how to join can be found on www.isbtweb.org.

Key dates
- Deadline for Abstract Submission: July 24, 2019 at 23.59 CEST
- Deadline for Harold Gunson Travel award: July 24, 2019 at 23.59 CEST
- Deadline Early Registration Fee: October 10, 2019
- Deadline Late Registration Fee: November 7, 2019
- Onsite fee applies as of November 8, 2019

The scientific programme
The programme starts on Sunday November 17, 2019 and runs until Tuesday November 19, 2019. It consists of a mixture of plenary sessions, academy sessions and scientific sessions.

The scientific program will offer meeting participants a wide range of interesting and novel parallel sessions both highly scientific and educational. Sessions include Red Blood Cell Immunology, Donor Management and Adverse events and Haemovigilance. There will also be an exciting session given for the best scoring abstracts from the brightest of our young investigators. A session dedicated to transfusion practitioners/ nurses will also be included. In addition, the plenary sessions will be packed with novel aspects of transfusion medicine culminating in a lecture session on the hidden world of platelets and megakaryocytes. We are convinced that the Bangkok scientific program will have something for everyone and will be a real learning experience for even well-seasoned blood bankers.

Academy (Education) sessions in Bangkok
There will be six Academy (Education) sessions during the Bangkok scientific programme. These are great sessions to get acquainted with a topic you are not familiar with or for you to brush up your knowledge. The topics of the Academy (Education) sessions include:-

- The considerations that need to be taken into account when transfusing haemoglobinopathy patients from laboratory testing to the prescription and administration of the blood
- Implementing and maintaining quality systems
- An update on P1 and Xg and MNS blood groups, delegates will also learn how to develop a rare donor programme
- An overview of international haemovigilance activities and individual country reports
- An introduction to Patient Blood Management and how to introduce it into clinical practice
- Explaining how to assess the risk of transfusion transmitted infectious diseases
- A reflection on the ethical issues related to blood donation

"As a student the congress benefitted me immensely as it boosted my confidence about my work, presentation skills and me as a person. I realized that the higher you go up the more humble you become as was evident in the manner in which all the big names of transfusion medicine conducted themselves. I made new friends, established contacts and got further inspired to perform good work". Disha Parchure

Workshops
There will be a number of workshops either before or during the congress. These include:
- Granulocyte immunobiology; November 14, 15, 2019 to be held at Thammasat University
- Quality Management ; a workshop for a small number of people with case studies
- Writing successful grant applications
- Career development in transfusion medicine for young professionals

Further details of the workshops can be found on the congress website: www.isbtweb.org/bangkok/scientific-programme/workshops/

Breakfast sessions
A Young Professionals breakfast where young professionals have the opportunity to meet with key workers in transfusion medicine to discuss their scientific work. A transfusion practitioner/transfusion nurses breakfast where TPs and TNs have the opportunity to meet together and network.

Exhibition
Alongside the scientific programme there will be an exhibition of suppliers of transfusion medicine equipment and reagents.. You are invited to visit the exhibition and discuss current and upcoming technologies with the exhibitors. We are expecting many of our industry supporters to be exhibiting.

Congress venue
The Centara Grand Bangkok will be congress venue for the 30th Regional Congress in Bangkok. Experience the convention complex with the latest meetings and events technology. The convention centre and the hotel connect seamlessly.

Convention Center Centara Grand Bangkok
999/99 Rama 1 Road Pathumwan
Bangkok 10330, Thailand

Website: www.centarahotelsresorts.com/centaragrand/cgcw/

Social programme
Saturday November 16, 2019 at 17.30

The opening ceremony will include welcome speeches, the giving of the ISBT award and local entertainment.
The welcome reception with complimentary food and drink will immediately follow the official opening in the exhibition hall. A great opportunity to meet colleagues and make new friends from the transfusion medicine community.

Tuesday November 19, 2019 19.30 – 23.30

The congress party with Thai food, local entertainment, local craft to try your hand at and a dance band. The party will take place at the Hotel Intercontinental.

Further information about the Bangkok congress is available on www.isbtweb.org/Bangkok

Inge Stevens
Dubai, UAE

Medlab Congress 2019: updates and innovations in haematology and blood transfusion

The 18th edition of Medlab - the leading global laboratory medicine exhibition and multidisciplinary congress – returned to the Dubai World Trade Centre in the United Arab Emirates from 4-7 February 2019, providing an essential platform for the MENA region's medical laboratory industry to build relationships with international stakeholders and enable companies to showcase progress and achievements in the sector.

More than 25,661 medical laboratory industry professionals and 608 exhibiting companies from 51 countries attended the four-day event featuring an increased focus on strategic plans for the medical laboratory in 2020 and beyond through scientific advancements, new technologies, and continuous review of quality standards and international regulations.

With more than 4,673 delegates and 110 international and regional speakers, Medlab Congress is the only multi-disciplinary CME-accredited medical laboratory congress in the region. The 2019 edition saw the introduction of three new tracks including Artificial Intelligence, Immunology, and Cytogenetics & IVF, bringing the total number of conferences to 11.

Under the theme "Enabling best practice by addressing the latest trends and advances in the field of transfusion medicine", this year, the ever popular Blood Transfusion Medicine conference was combined with the specialist subject of haematology to form the Haematology & Blood Transfusion conference. The aim was to bring together leaders within these specialist fields of science to provide a broader overview of current key developments and best practices in the UAE, supported by evidence-based education.

The Dubai Health Authority's Blood Donation Center (DBDC) was founded in 1986 and is the main blood donation centre in Dubai. The facility, accredited by the American Association of Blood Bank since 2012, collects around 50% of the total blood collected throughout the country and collects around 50,000 blood units every year.

Co-chaired by Dr Aaron Han, Chief of the Department of Pathology at American Hospital Dubai and Dr Ziad Peerwani, Consultant Haematologist at Tawam Hospital in Abu Dhabi, discussion during the morning session centred around the latest updates in haemovigilance and quality control in haematology. Prof Martin L. Olsson, President of the International Society of Blood Transfusion, kicked off the session with a special address on blood group matching in the genomic era.

Infection prevention and transfusion transmitted infections (TTI's) was another key topic of discussion for the morning with a range of subjects such as improved blood collection practices across the United Arab Emirates, addressing post-transfusion complications and the diagnosis of blood-transmitted viruses examined by the esteemed speaker faculty.

The afternoon's discussions covered several important topics such as harnessing the immune system in malignancy therapy, effectively addressing bone marrow failure syndrome and the molecular and genetic drivers of Acute Myeloid Leukemia.

During the final session of the day, Dr Ahmad Alduaij, Staff Physician, Anatomical Pathology, Pathology & Laboratory Medicine, Cleveland Clinic Abu Dhabi, Abu Dhabi, UAE, brought the conference to a close with a cutting-edge presentation on tackling high grade Lymphoma.

The Medlab Congress will return to the Dubai World Trade Centre from 3-6 February 2020. For more information, visit medlabme.com.

The 6th National Congress of Indonesian Association of Transfusion Medicine (IATM)

Ni Ken Ritchie
IATM
Indonesia

In December 2018, the Indonesian Association of Transfusion Medicine (IATM) held a National Congress and Seminar in Balikpapan. The congress took place from December 5, 2018 until December 7, 2018 and was attended by 208 people who work as managers and technicians in blood centers and blood banks, also clinicians from hospitals and government representatives both locally and from abroad. This event was very successful and brought us more knowledge and new perspectives in Transfusion Medicine. ISBT was also part of this success because of their support for the speakers from abroad such as Ms. Yoke Lin Fung, Ms Chua Sze Sze and Dr. Dato' Faraizah.

We included in the seminar, many topics that have been trend topics in Indonesia. We were excited to see the participants were very active to learn more about how serious TRALI is as a transfusion reaction from Ms Yoke Lin Fung who works in University of Sunshine Coast, Australia. The topic about Patient Blood Management and haemovigilance were always interesting topics to understand and how to implement it. They were also very curious about the necessity of screening for Dengue Virus which was presented by Ms. Chua Sze Sze from HSA Singapore and about Hepatitis E that could be found in parts of Indonesia. Mr. Matt Delago the global development director from ICCBBA talked about The ISBT coding and labelling standard. Furthermore, the minister of health of Indonesia informed about progress with work on developing an Accreditation System for Blood Center in Indonesia, while the National Agency of Drug and Food Control explained the cGMP for Blood Establishment and Plasmapheresis Center. The last session of the seminars presented topics on plasma fractionation such as converting replacement donors to VNRD for sufficient sources of plasma for fractionation by Dr. Dato'Faraizah from Kuala Lumpur, Good manufacturing and Good Transportation of FFP. Overall, the participants were satisfied with the speakers, moderators, facilities and accommodations.

We did not just have seminars, we also had a national meeting with a main agenda to present the 3-year report (2015-2018) of all the activities that had been done such as organizing international events in collaboration with ISBT (14-16 November 2015), NRL (27-28 February 2017), IPFA (2-3 March 2017) and the APEC Blood Safety Policy Forum (12-14 December 2017), participating in The National Blood Service Committee and drafting the additional competency of transfusion medicine for general practitioners in Indonesia. In this meeting, Dr. dr. Yuyun SM Soedarmono, MSc. who is working in WHO since October 2018, handed over her responsibility as the chairman of IATM to Dr.dr. Ni Ken Ritchie, M.Biomed as the new chairman of IATM for 2018 - 2021. "I will fully support IATM and hope this new team will continue and elaborate the program that has been established to achieve the safe and quality of blood transfusion service in Indonesia" said Dr.dr. Yuyun SM Soedarmono in her speech.

Picture 1. The Mayor of Balikpapan beat The Gong when opening the Congress, accompanied by Dr. Yuyun, the President of IATM and other stakeholders.

Abdu Juma
TNBTS
Africa

Tanzania: Report of the haemovigilance training

Since its establishment in 2004, the Tanzania National Blood Transfusion Services (NBTS) did not have a Haemovigilance program. The initiative to establish a Haemovigilance program was realized in 2018 whereby the guidelines and data collection tools were developed and the roll out of the program was designed to be in phases to ensure smooth uptake by hospitals. The first cohort of 10 selected Transfusing Referral Hospitals was conducted in September 2018 and reporting of Haemovigilance data started in October, 2018. In order to scale up Haemovigilance program to more facilities, on 20th September 2018, NBTS submitted a financial support request to ISBT Academy for the scale up plan. The training was conducted for two days on April 15 – 16 in Dodoma, the capital city of Tanzania. A total of 56 participants attended the training. Of these 18 were Medical Doctors, 29 were Laboratory professionals, and 3 were nurses.

Objectives of the Workshop

- To enroll new 10 transfusing hospitals and train healthcare workers on Haemovigilance Program
- To equip health care workers with Knowledge on how to perform root cause analysis to all identified Adverse Event, develop and institute corrective actions.
- To review implementation status of the Haemovigilance Program for first Cohort of 10 Transfusing hospitals which were enrolled in October, 2018.

Day 1

The training-workshop began with an introduction and welcome note from Dr. Abdu Juma on behalf of the Program Manager. He then welcomed participants and asked them to introduce themselves. The Assistant Director of Public and Private Hospital (ADPPHF), Dr. Vivian Wonanji officially opened the Workshop. The ADPPHF insisted the importance Haemovigilance as part of a quality management system in ensuring patient safety and urged participants to adhere on timely reporting of all adverse events so that we can identify weakness in our systems and policy and institute corrective action.

Participants were requested to attempt Pre-Test Questions on Haemovigilance as part of assessment of the current knowledge and results indicated that the average performance of the whole group was 61%, while the highest score was 77% and lowest score was 30%. The Pre-Test was followed by a number of presentation as detailed in Annex 1 attached

Day 2

The training-workshop started at 08:30am with Recap of Day one activities. This was followed by with a series of presentations and group works which focused on case studies. Case studies were on classification, identification and investigation of all specific adverse transfusion reactions. At the end of the session, participants attempted Post Test Questions to assess the knowledge gain after training. The Post Test average score was 74%, while the highest score was 90% and the lowest score was 60% with average knowledge gain of 21.3% for the whole group.

Participants were also provided with training evaluation forms and were asked to provide their feedback. Objective, relevancy, training content, teaching methods, facilities and workshop facilitators were rated 5 on Likert scale meaning that, participants strongly agreed with these categories. However most of the participants scored 4 on the program schedule and recommended more time to be allocated for training.

Finally, the team developed an action plan to guide the implementation of Haemovigilance (Annex 2)

Sergey Sidorov
Russian Transfusionist Association

Standards and individual approaches in transfusion medicine in Russia

The Russian Transfusionist Association and National Pirogov Medical & Surgical Center on 12-14th of December 2018 held their 25th conference “Standards and individual approaches in clinical transfusion medicine,” which was attended by over 200 specialists from Russia, Belarus, Ukraine, Tajikistan and the Netherlands.

Opening the conference, professor Eugene Zhiburt informed the audience that in Russia 111 blood centers, 203 hospital blood banks and 12 plasma centers collected blood and blood components. The quantity of blood recipients has increased from 1,196,633 patients in 2016 to 1,209,725 (more than 0,8 % of the population) in 2017 year.

From January 1, 2019, a new version of the law on blood donation came into force and the technical regulation is replaced by the Rules for the collection, storage, transportation and clinical use of donated blood and its components. NAT for HIV, HBV and HCV will carry for all seronegative blood samples of donors. Due to this, the quarantine period of donor plasma is reduced to 120 days. Donors are examined for HIV, viral hepatitis B and C, syphilis. In 2013, due to the presence of markers of these infections, 28,533 people were rejected (13.8% of all these infections in the country). By 2017, these figures dropped to 15,910 people and 8.0%, respectively. Obvious problems include attracting healthy people to donate, and the specificity of diagnostic studies.

Professor Mikhail Zamyatin spoke about emergency care for patients who have been taking anticoagulants for a long time. If surgery is necessary in such patients, the doctor will have to choose: a) to postpone the operation; b) neutralize the anticoagulant; c) operate under hypocoagulation conditions. In order to reduce the risk of iatrogenic, in the hospital it is necessary to create a local protocol for the management of such patients, based on knowledge of the characteristics of anticoagulants, taking into account the diagnostic, therapeutic and economic possibilities of the organization. In accordance with this protocol, a supply of drugs and blood components needed to assist patients receiving anticoagulants should be created in the hospital, and a person responsible for recording, storing and making an application (but not for use) should be assigned. Stock should be available around the clock. The staff on duty should be aware of the presence in the hospital of the products for the correction of the hemostasis system, be able to use them and have the right to do so.

Martin Smid, as a key foreign speaker, told that there are no papers in the Netherlands haemovigilance system - hospitals fill out notification of reactions in electronic form on tripnet.nl. The transfusion reactions also include newly identified irregular antibodies to red blood cells (in 2016, 637 patients in 63 hospitals, no severe reaction). The Sanquin collect blood in 51 stationary and 85 mobile donor centers, prepare components in 2 locations, all diagnostics are performed in one laboratory. There are 7 distribution centers of blood components for about a hundred hospitals. The immunohematological laboratory of Sanquin also examines all pregnant women in the country. 96% of platelet concentrates in the country are prepared from pooled buffy-coats and another 4% of platelet concentrates are prepared by apheresis from histotyped donors for HLA or HPA-alloimmunized patients. All platelets are screened for bacterial contamination. This is an excellent example of national blood service centralization. Studying this experience, it should be borne in mind that the area of Russia is 400 times larger than the area of the Netherlands, and the population density is 50 times less. Therefore, pathogen inactivation in the blood bank seems to us preferable to the centralized laboratory of bacterial control.

The next conference in Moscow will be held on December 12, 2019. All colleagues are welcome.

Step-wise accreditation of blood transfusion services in Africa

Lesley Bust
Africa Society for
Blood Transfusion

Introduction

The Africa Society for Blood Transfusion (AfSBT) advocates for access to safe blood and blood products in Africa. The Step-Wise Accreditation Programme (SWAP) is a tool for achieving this. Individual countries decide whether to be certified at basic level at Step 1 or intermediate level at Step 2, or to undergo full accreditation at an international level at Step 3. The specific requirements for each step are detailed in the AfSBT Compliance Chart. Twenty countries on the continent are currently engaged in the programme.

The Accreditation Process

Accreditation is performed against the AfSBT Standards which were developed in conjunction with the American Association of Blood Banks (AABB) and endorsed by a panel of international experts in the field of blood transfusion. A process is underway to obtain accreditation of the AfSBT Standards by the International System for Quality Accreditation (ISQua).

The AfSBT accreditation process in African countries begins with training on the requirements of the AfSBT Standards. Thereafter a baseline assessment is carried out to perform a gap analysis and to develop a work plan. When the facility has addressed the identified gaps, a progress assessment is performed and any remaining corrective actions are identified. Finally, a formal certification or accreditation assessment is performed by an independent AfSBT team. A surveillance audit is performed eighteen months after accreditation/ certification is achieved and a full re-assessment is carried out after three years.

The AfSBT currently has a management office of ten part-time employees working from virtual offices around Africa. In addition, the Society has trained a panel of over thirty educators and assessors to support the accreditation programme. The educators perform training as well as the baseline and progress assessments while the assessors perform the formal accreditation/certification assessments. In this way, a separation is established between education and accreditation activities.

The AFSBT accreditation programme has been made possible by funding obtained, over three years, from the Centers for Disease Control and Prevention (CDC) in Atlanta. The CDC has sponsored assessments in specific countries supported by the President's Emergency Plan for AIDS Relief (PEPFAR). For other countries, alternate funding has been sourced from a commercial company or assessments are being self-funded. Non-financial support for accreditation-related activities has been provided by the International Society of Blood Transfusion (ISBT) and the AABB.

The Pace of Progress

In developing countries in Africa significant progress has been made towards accreditation in a relatively short time compared with more developed countries, like South Africa. Blood transfusion facilities in South Africa have been in existence for eighty years and a national accreditation programme has been in place for the past sixteen years. The quality system currently in place has been developed and improved steadily over many years. In comparison, the establishment of national blood transfusion services and the implementation of quality systems is a recent development in many other African countries. To mention specific examples, national blood transfusion services were only established in Malawi in 2002 and in Tanzania in 2004.

Countries Engaged in AfSBT SWAP

The table below shows the current status of progress towards accreditation in the twenty countries engaged in the SWAP (as of December 2018). In some countries all regional branches have undergone assessment whereas in others a start has been made by first assessing the main branch or headquarters.

To date, two countries have achieved accreditation at Step 3 and one country is about to be certified at Step 2. Baseline assessments, together with training on the AfSBT Standards, have been conducted in nineteen countries, progress assessments in six countries and formal assessments in another five countries.

Benefits of AfSBT SWAP

Namibia

The Namibia Blood Transfusion Service (NAMBTS) became the first blood establishment to achieve Step 3 accreditation in 2012. In an article written for the AFSBT newsletter, the Technical Division Manager, Mr Israel Chipare, states that accreditation has facilitated continuous improvement in the quality and safety of collecting, processing, testing, transfusing and distribution of blood and blood products. [1] A full quality system has been implemented, including

Country	Baseline Assessment	Progress Assessment	Formal Assessment	Achievement
Benin	✓			
Burkina Faso	✓			
Cameroon	✓			
Côte D'Ivoire	✓	✓		
Ethiopia	✓			
Eritrea	✓			
Ghana	✓			
Kenya	✓	✓		
Lesotho	✓	Not required	✓	
Malawi	✓	✓	✓	
Mali	✓			
Mauritius	✓			
Mozambique	✓			
Namibia	✓	Not required	✓	Step 3
Nigeria	✓			
Rwanda	✓	✓	✓	Step 3
Tanzania	✓	✓	✓	Step 2 pending
Uganda	✓	✓	Due Nov 18	
Zambia	✓			
Zimbabwe	*Due 2019*			

regular reviews of the system, planned internal audits and validation of processes and equipment. Specific improvements have been made in the management of vendors and the handling of critical raw materials as well as in haemovigilance and clinical interface. Since AfSBT accreditation, a culture of quality has become core to the business. Testing for TTI has been successfully relocated from South Africa to Namibia and NAMBTS meets the requirements for supplying plasma for fractionation. The adequacy of blood supply has improved from 10 units (2012) to 15 units/ 1000 population (2017).

Rwanda

The Rwanda National Blood Transfusion Centre was the second facility to achieve Step 3 accreditation in 2016, after first obtaining Step 2 certification in 2014. In a presentation at the AfSBT congress in Arusha in June 2018, the head of the blood service, Dr Swaibu Gatare, stated that prior to accreditation the service had no written policies, processes or procedures, there was no factual approach to decision-making and efficiency was generally low. There was no haemovigilance, no customer focus and no quality culture. Implementation of a quality management system on their path to accreditation focused on the following steps:

- Development of policies, processes and procedures in order to implement the AfSBT Standards
- Training of staff in accordance with needs analysis
- Competency assessments and remedial action where necessary
- Managerial staff assigned responsibility for motivating staff, creating customer focus and cultivating a quality culture
- Improvement of the clinical interface with reporting on blood utilisation, supervision and mentorship.

Further actions included:

- Implementing an External Quality Assurance (EQA) programme for both blood grouping antibody screening and serology testing (HIV, HCV, HBV and Syphilis). Since implementation the score achieved has always been 100 %.
- Reagent internal quality control done on a daily basis with no test being allowed to run if the QC failed. This encompasses antisera used in blood grouping, as well as reagents for automated blood grouping and the serology system
- Introduction of monthly QC on blood products. For platelets, volume, pH and platelet count are determined. For red blood cells, percentage haemolysis, Hb, volume and haematocrit are determined.
- Percentage of repeat donors was increased from 63 % in 2017 to 75 % in 2018.
- Blood supply orders were monitored against distribution and currently 96 % of orders are being met
- Forms were introduced to obtain feedback from both blood donors and health facilities. Donor satisfaction increased to 96% in 2017.

In conclusion, Dr Gatare stated that AfSBT Step-Wise accreditation has led to the establishment of a quality culture throughout the organisation, improved planning skills and an improvement in clinical interface. In addition, all staff are trained and certified competent to all SOPs.

Tanzania

The Tanzania National Blood Transfusion Service (TNBTS) was established in 2004. In 2014, the Service began working towards accreditation with the implementation of a quality management system. Policies, guidelines and procedures were standardised at the zonal, satellite and collection team levels. At the AfSBT congress, the Head of Quality Assurance, Mr Dunstan Haule, outlined the challenges faced during the AfSBT SWAP process. These included high staff turnover leading to repeated training of new staff, negative attitude of some staff towards quality, and inadequate funding for procurement of critical equipment such as cold chain equipment and an alarm system for continuous temperature monitoring.

AFRICA

During preparation for accreditation, the AfSBT provided technical assistance to TNBTS through training on the following topics:

- Overview of the blood transfusion chain including blood donor services and laboratory services
- Donor recruitment strategies
- Patient blood management
- Quality Management System and Good Manufacturing Practice (GMP)
- Cold chain management
- Management and supervision skills
- Handling of non-conformances
- Training on mapping of processes
- Training on providing mentorship
- Developing financial sustainability through cost sharing
- Monitoring and evaluation, including measurement of quality indicators
- Risk management.

AfSBT facilitated support, with the aid of consultants, for the development of a blood group serology EQA programme which has been rolled out to over a hundred sites. Assistance was provided with the implementation of the eDelphyn computer software system and the establishment of a central database.

Significant progress has been made in Tanzania since 2014 and the Service is about to be awarded Step 2 certification at six of its eight zonal centres. The TNBTS intends to continue working towards full accreditation at Step 3 for all its zonal centres.

Other countries

In all those countries working towards achieving AfSBT accreditation, the most significant improvement has been seen in the implementation of an effective quality management system. At the beginning of the process, documentation is often lacking and needs to be developed and approved. This includes policies, SOPs, forms, testing algorithms, job descriptions, organograms, personnel records and safety procedures. Many facilities have limited resources and this task is onerous but the benefits gained in implementing a robust documentation system have proved to be worth the effort enabling progress in the SWAP.

Future Challenges

Enormous strides are being made in improving blood safety in Africa but countries are often unable to progress at the rate they would like. Many countries have limited human resources (especially with regard to trained and skilled personnel), poor infrastructure and logistics, lack of essential equipment and regular supplies, and inadequate government support.[2] There is a need to engage with governmental organisations to garner support and facilitate the development of a national regulatory framework. There is also an extensive need for training in quality principles, laboratory techniques and management practices.

AfSBT is a not-for-profit organisation operating with a small core of part-time staff and therefore has limited capacity to provide countries with the assistance they require. The CDC cooperative agreement with AfSBT will be ending in March 2019. Alternate funding needs to be sourced. For the accreditation programme to be sustainable countries will have to cover the costs of their own assessments in future. This will need to be done through government support, which often presents difficulties, or through donor funding.

Despite the challenges being faced AfSBT remains committed to improving blood safety in Africa. Countries engaged in the programme are determined to progress to more advanced levels and it is hoped that the Step-Wise Accreditation Programme will grow to include more countries.

References:

1. I Chipare. Success Story of Implementation of AfSBT Accreditation Programme in Namibia. AfSBT Newsletter - Blood is Life, Volume 4 Issue 7, June/July 2018.
2. L Bust. The Challenges of Quality Management in Resource-limited Countries. Transfusion Today Number 114, March 2018.

Conflict of interest: None

NORTHERN AMERICAS

Allison Collins
Ontario Regional Blood Coordinating Network

Promoting blood transfusion best practices in a Canadian province: The Ontario regional blood coordinating network

Canada consists of ten provinces and three territories, Ontario being the most populous of these with 12.8 million inhabitants. Blood components and products are provided to all provinces and territories (with the exception of the province of Quebec) by Canadian Blood Services (CBS), a not-for-profit charitable organisation regulated by Health Canada as a biologics manufacturer and primarily funded by the provincial and territorial governments.

The Ontario Regional Blood Coordinating Network (ORBCoN) was created in 2006 by the Ontario Ministry of Health and Long Term Care (MoHLTC) to support the province's blood utilisation strategy by improving blood product utilisation and, ultimately, optimizing patient care. ORBCoN has three regional offices, employs twelve staff, and serves approximately 150 hospitals with blood transfusion services. Each regional office is supported by a volunteer expert clinician or scientist sponsor. Each of ORBCoN's five goals is briefly described below.

1. Promote and Support Utilization Improvement Activities

Since its inception, ORBCoN has performed provincial audits of red cell, plasma, intravenous immune globulin, and platelet utilisation, audits of bedside practice of blood transfusion, and audits of group O negative red cell use and AB plasma use. These have revealed opportunities to improve utilisation, and helped to guide the development of educational resources. For example, 52% of frozen plasma orders were deemed inappropriate in the 2013 audit, and the topic for this year's ORBCoN Transfusion Medicine Spring Symposium will be Plasma Utilisation.

2. Provide Educational Resources to Improve Patient Safety and Standardized Best Practices

Educational resources include the popular publication "Bloody Easy: Blood Transfusions, Blood Alternatives and Transfusion Reactions", now in its fourth edition (1). Also available are online e-learning tools for physicians, nurses, and laboratory technologists, and toolkits for midwives, transfusion safety officers, blood transporters, and others. ORBCoN sponsors a bi-annual Transfusion Committee Forum, a bi-annual Blood Transfusion Spring Symposium, and (with CBS) an annual Blood Transfusion Videoconference Symposium, the last aimed at Ontario's smaller and more remote community hospitals.

3. Promote and Support Best Practices in Inventory Management

ORBCoN supports provincial redistribution of platelets via a web-based platelet sharing application, and facilitates redistribution of near-to-outdate plasma protein products (PPPs). The annual value of redistributed PPPs exceeds the annual ORBCoN budget. ORBCoN also facilitated the creation of the provincial Contingency Plan for Management of Blood Shortages, now in its third iteration and, with the MoHLTC and CBS, has conducted three provincial Blood Shortage exercises.

NORTHERN AMERICAS

4. Provide/Receive Timely and Relevant Information To/From Hospital Stakeholders

ORBCoN has a website www.transfusionontario.org, on which reside all of our educational resources, toolkits, newsletters, audit reports, etc. ORBCoN and CBS staff visits each Ontario hospital with a blood transfusion service every year. These annual site visits provide an opportunity to review hospital-specific blood utilisation, to promote educational materials and opportunities, and to receive feedback from hospitals (urban, rural, remote, teaching etc.) about their specific challenges related to the provision of blood.

5. Quality and Safety

In 2013, ORBCoN created the positions of nurse and physician clinical project coordinators, whose duties include the provision of on-site educational presentations to hospital nursing and medical staff throughout the province. In 2016, ORBCoN launched the Ontario Transfusion Quality Improvement Plan (OTQIP), with the goal of optimizing red cell utilisation. The Plan includes two quality indicators: % red cell transfusions ordered with a pre-transfusion hemoglobin of less than 80g/L, and % single unit transfusions. Hospitals can enter their baseline and ongoing data in a web-based audit tool and follow their own progress over time. For example, single unit transfusions have increased from an average of 28% to 52% at participating hospitals in the past two years.

These are only a few examples of the initiatives undertaken by ORBCoN since its creation in 2006. Readers are encouraged to visit our website. Most of the material there, apart from the online audit tools, is available to all visitors to the website. Hard copies of books and other resources can also be purchased. We hope that you will find useful material there!

References:

1. Callum JL. Bloody Easy 4: Blood Transfusions, Blood alternatives and Transfusion Reactions. Ontario Regional Blood Coordinating Network, 2016. Available as a downloadable flipbook at www.transfusionontario.org

WESTERN PACIFIC

Antonio Emmanuel O. Villafania
Philippine Red Cross Laguna Chapter

The Philippine Red Cross National Blood Services:

A breath of compassion in a third world country

Born after World War II, the Philippine Red Cross was formally instituted in 1947 and recognized as a non-government, non-profit humanitarian organization in the country. Since then, it has been delivering humanitarian aid to the people, all the while maintaining its independence in observance of the fundamental principles of the International Red Cross and Red Crescent Movement. One of its key roles in the alleviation of human suffering, particularly in a third-world country such as the Philippines, is the provision of safe, adequate, accessible, and quality-assured blood and blood products to transfusion patients, especially the poor and the marginalized.

Under the leadership of its chairman and CEO, Senator Richard Gordon, as well as the stewardship of its blood services director, Dr. Christie Monina Nalupta, the Philippine Red Cross National Blood Services (PRC-NBS) is tasked with the day-to-day mission of answering the country's blood needs in a timely and effective manner, by deploying its dedicated staff and volunteers in blood donor recruitment, blood collection, processing, and distribution. In the performance of its duties, PRC-NBS takes great care in observing hemovigilance and the preservation of the cold-chain – factors that play a vital role in the safety of blood and blood utilization. Since its institution as a member of the country's tripartite National Voluntary Blood Services Program (NVBSP) in 1994, the PRC-NBS has been active in its advocacy and implementation of voluntary, non-remunerated blood donation (VNRBD) in the country. By working closely with the Department of Health and the Philippine Blood Coordinating Council, the PRC-NBS earnestly addresses issues and challenges pertaining to effective donor recruitment, initiating paradigms shifts on remunerated vs non-remunerated donation, cost of blood processing, deferral stigma, blood distribution, and availability of funds for assisting indigent patients who require blood transfusion.

Over the years, PRC-NBS has been instrumental in aiding the national government towards its journey in attaining 100% voluntary, non-remunerated blood donation. While the national collective percentage for VNRBD in 2017 is 77%, PRC-NBS attained 96.12% from its own donor population, while consistently providing nearly 50% of the country's blood requirements. Because of this, voluntary blood donation in the Philippines is now 1.2% of the total population, meaning it has met the basic national requirement for blood as set by the World Health Organization. Out of the 34 licensed blood centers in the Philippines, 26 are operated and managed by PRC-NBS. These blood centers contribute greatly to the safety, adequacy, and accessibility of blood in the different regions of the country. Through its 89 blood service facilities, PRC-NBS earnestly bridges the gap in blood accessibility via this blood service network spread across the archipelago, despite the evident challenges presented by the country's geography.

WESTERN PACIFIC

From 2014 to 2017, PRC-NBS significantly progressed in terms of donor participation and infrastructure development. The total VNRBD collection reached 1,596,228 units in the last 4 years, mainly due to an effective campaign for voluntary, non-remunerated blood donation, and subsequent donor retention in the corporate, law enforcement, socio-civic, religious, educational, and community sectors. PRC-NBS strengthened its mobile blood donation drives, encouraging new and regular donors alike to make voluntary blood donation a habit, and giving worth to their contributions via events such as the annual Blood Donors' Recognition Day. PRC-NBS has five new blood service facilities in line for operation by 2019; it also upgraded some its blood collecting units to blood center status, to improve service delivery in the different areas of the country.

As a developing country, the Philippines maintains a spirit of resilience, proving itself to be a work in progress in the face of economic difficulty. With most of the population well below the poverty line, the nation is struggling to improve its healthcare system to cater to patients who cannot afford hospitalization, much less the cost of blood processing and blood transfusion.

Through its Blood Samaritan program, the Philippine Red Cross provides the assistance necessary for indigents to gain access to blood and blood products. It does this by constantly partnering with private and public benefactors, while maximizing its own resources to ensure that blood is available to those in need, especially the most vulnerable in society. Guided by its quest to exude compassion in all aspects of the human condition, it is the Philippine Red Cross National Blood Services' aspiration – its dream - to uplift the nation and move it from its present condition into a future where all transfusion patients can receive the quality healthcare they deserve.

2019

June 14
World Blood Donor Day 2019
hosted by Kigali, Rwanda

Aug 5-8 2019
35th South African National Blood Transfusion Congress (SANBTC)
Sun City, South Africa

September 4-6
XVII Congreso Argentino de Medicina Transfusional
Buenos Aires, Argentina

September 25-28
XVII National Congress of Transfusion Medicine of the Asociación Mexicana de Medicina Transfusional (AMMTAC)
Monterrey, Mexico

June 22 - 26
29th Regional Congress of ISBT
Basel, Switzerland

November 16 - 19
30th Regional Congress of ISBT
Bangkok, Thailand

Future ISBT Congresses

Basel
Bangkok
Barcelona

29th Regional Congress of the ISBT, Basel, Switzerland, June 22-26, 2019
30th Regional Congress of the ISBT, Bangkok, Thailand, November 16-19, 2019
36th International Congress of the ISBT, Barcelona, Spain, June 6-10, 2020

Get through the mosquito season without incremental donor deferrals, additional NAT-testing and risk of supply disruption.*

The INTERCEPT™ Blood System is ready.

ARE YOU?

- 2007 Paul-Ehrlich-Institut issues a guidance[1] that specifies pathogen inactivation as equivalent to donor deferral and testing for Chikungunya (CHIKV).
- 2014 Paul-Ehrlich-Institut issues a guidance[2] that specifies pathogen inactivation as equivalent to donor deferral and testing for West Nile Virus (WNV).
- 2016 WHO[3], US FDA[4] and Paul-Ehrlich-Institut guidances[5] offer pathogen inactivation as one option to mitigate risks related to Zika Virus (ZIKV) outbreaks.
- 2017 INTERCEPT™ Blood System for pathogen inactivation helps to maintain supply continuity during Chikungunya (CHIKV) outbreak in Italy[6].
- 2018 First recorded cluster of locally acquired Dengue Virus (DENV) cases in Spain[7]. Various studies demonstrated[8,9] that the INTERCEPT™ Blood System has robust pathogen inactivation for various strains of DENV.
- 2018 Number of West Nile Virus (WNV) infections in Europe exceeds the total number in the last 5 years[10]. The INTERCEPT™ Blood System enabled earlier release of apheresis platelets in France.

WNV **DENV** **CHIKV** **?** **What's next?**

For more information on availability in your country, please visit www.interceptbloodsystem.com

* Valid for apheresis platelet concentrates only

[1]Paul-Ehrlich-Institut. Verminderung des Risikos von Chikungunya - Infektionen durch zelluläre Blutprodukte und gefrorenes Frischplasma, Anordnung der Spenderrückstellung von Personen, die sich in den letzten zwei Wochen in einem Chikungunya-Endemiegebiet aufgehalten haben (24 Jan 2007). [2]Paul-Ehrlich-Institut. Stufenplan Stufe 2: Anordnung des Ausschluss von Blutspendern zur Verhinderung einer möglichen übertragung des West-Nil-Virus durch nicht pathogen-inaktivierte Blutkomponenten (22 Jan 2014). [3]WHO Interim guidance WHO/ZIKV/HS/16.1 February 2016. [4]FDA Guidance for Industry February 2016. [5]Paul-Ehrlich-Institut. Bekanntmachung über die Zulassung von Arzneimitteln - Abwehr von Arzneimittelrisiken Stufe 2 - Verminderung des Risikos von Zika-Infektionen durch nicht pathogen-inaktivierte Blutkomponenten und gefrorenes Frischplasma (10 Mar 2016). [6]Luca Pierelli et all; Emergency response of four transfusion centers during the last Chikungunya outbreak in Italy; Transfusion 2018;9999;1–4. [7]European Centre for Disease Prevention and Control. Local transmission of dengue fever in France and Spain – 2018 — 22 October 2018. Stockholm: ECDC; 2018. [8]K. Dupuis, High Titers of Dengue Virus in Platelet Concentrates are Inactivated by Amotosalen and UVA Light, Transfusion 2012-Vol. 52 Supplement. [9]Li Kiang Tan, Evaluation of Pathogen Reduction Systems to Inactivate Dengue and Chikungunya Viruses in Apheresis Platelets Suspended in Plasma, Advances in Infectious Diseases, 2013, 3, 1-9 [10]European Centre for Disease Prevention and Control. West Nile fever in Europe - Number of infections so far exceeds the total number in the previous five years - 2018 - 24 Sep 2018. Stockholm: ECDC; 2018.

No pathogen inactivation system has been shown to inactivate all pathogens.

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