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In Focus

V IS FOR VIGILANCE: Updates from the Hemovigilance Working Party

ISBT

Editorial

Following the new format for In Focus articles, this edition's In Focus section is dedicated to the Haemovigilance Working Party (HVWP). The articles give an insight into their many projects and activities, including collaborating with WHO on HV workshops and a user guide for navigating resources on stepwise implementation of HV systems. The User guide and access to the many resources within will soon be hosted on the ISBT website and available to all.

This new ISBT website was launched in March and is the visible "front-end" of new integrated office systems at ISBT, giving us the opportunity to deliver a better member experience.We hope that you will enjoy using it! We plan to continue its development to make it easier for ISBT members to connect with each other and to access resources, and for ISBT WPs and committees to communicate, share documents and arrange meetings through their own areas.

The ISBT 2022 congress will be held on-line 4-8 June with a great international scientific and educational programme bringing together the latest research and developments, and the chance to get together at "meet the expert" and networking sessions. The programme is planned in two blocks per day, spanning time zones so that it is possible to participate in a great selection of live sessions from any part of the world, with rapid on-demand access for delegates. Plenary sessions include two exciting award sessions featuring lectures from the winners of the prestigious ISBT Presidential Award (Nancy Heddle) and the Jean Julliard Prize (Alexander Vlaar); congratulations to both!

The election for new members of the ISBT Board of Directors is well underway now and closes on May 8, 2022. All ISBT members who joined on or before Dec 7, 2021 are eligible to vote, so don't miss your opportunity to cast your vote and shape the future of the society.

Looking forward to seeing you at ISBT 2022!

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ISBT-WHO partnership on WHO workshops on haemovigilance in Africa

Surveillance procedures for blood transfusion, known as haemovigilance, are an important part of a national blood system, and cover the entire blood transfusion chain. A performing haemovigilance system provides surveillance on blood collections, marker rates of transfusion-transmissible infectious diseases in blood donors, and adverse reactions in blood donors and transfusion recipients. It also enables the identification of epidemiological trends and benchmarking of performance across countries. Globally, the survey showed that only 38% of countries in the African Region had a national haemovigilance system.

In 2016, WHO published guidance on establishing national haemovigilance systems. Countries that implement this guidance, which have been mostly developed countries, were able to establish and implement the haemovigilance systems. However, establishment of a national haemovigilance system is still a challenge amongst others for most developing countries. The barriers are limited training and knowledge in transfusion medicine; lack of awareness and training on patient blood management; absence of national evidence-based guidelines for transfusion; absence of effective transfusion committees in hospitals; poor practices in blood component preparation, storage and handling, including maintenance of the cold chain.

To address this challenge as well as global challenges in blood services, WHO has published the Action framework to advance universal access to safe, effective and quality assured blood product 2020-2023 in February 2020. The document provides strategic direction to address barriers to safe blood, and it contains a framework for implementation of WHA resolutions, goals and strategies. One objective strategy listed in the document is effective surveillance, haemovigilance and pharmacovigilance, supported by comprehensive and accurate data collection systems.

Implementation of the action framework

As part of implementation of the action framework, a regional workshop was convened by WHO African Regional Office and HQ in collaboration with ISBT WP on Haemovigilance and International Haemovigilance Network, to raise awareness within the Ministry of Health, the NRAs and the NBTS with oversight of blood products, blood establishments and hospitals on the need for a nationally organized hemovigilance system.

The first workshop was conducted on 20 to 23 October 2020 for Burundi and Zambia. Participants were the representatives from NBTS, NRAs, WHO staff from AFRO including country offices; hospitals performing transfusion, and from African Blood Regulators Forum. In addition to the two targeted countries, participants from eighteen other African countries attended in this workshop. The speakers and moderators of the workshop included experts in haemovigilance from WHO/AFRO and partner organizations from, France, Germany, India, Italy, The Netherlands, Norway, United Kingdom and United States of America. The second workshop was conducted on 10-12 November 2021 for Mauritius and Eswatini with similar topics and additional speaker from Australia and moderators from Cameroon, Ghana and South Africa. Participants from fourteen other African countries took part in this second workshop.

All relevant topics on haemovigilance for these two workshops including the status and next steps for development of haemovigilance in Burundi, Zambia, Mauritius and Eswatini were presented. These topics aimed to: (i) facilitate design of the national hemovigilance system including hemovigilance in the blood establishment and in the hospital; (ii) provide training on use of tools for reporting adverse events and reactions in blood donors and recipients; and (iii) educate on methods to gather hemovigilance reports. All presentations were followed by open panel discussion with questions and responses.

Recommendation

The evaluation of the workshop indicated the need of:

a Support countries in the region in setting up haemovigilance systems;
b Organize more in-depth training sessions with practical cases and visits;
c Convene such workshops periodically.

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Make Development of WHO User Guide

Navigating resources on stepwise implementation of Haemovigilance Systems

The World Health Organization (WHO) has established "effective surveillance, haemovigilance and pharmacovigilance, supported by comprehensive and accurate data collection systems," as one strategic objective of the WHO Action Framework to Advance Universal Access to Safe, Effective and Quality-Assured Blood Products 2020–2023.[1] This objective builds upon the foundation established by the 2015 *Aide-mémoire for ministries of health: national haemovigilance system*[2] and the subsequent 2016 publication, A guide to establishing a national haemovigilance system.[3] An effective haemovigilance system is an integral part of a comprehensive quality system in blood establishments and hospitals. Nevertheless, many countries still lack an effective blood safety surveillance system and others seek to improve and enhance the heamovigilance systems they have established.

In recognition of such challenges faced by member states, in 2020 WHO sought to develop and make available tools to assist in the implementation and improvement of national haemovigilance systems. Initial efforts focused on establishing a working group with experts from the International Haemovigilance Network, the International Society of Blood Transfusion (ISBT), WHO-related units, and others involved in haemovigilance systems worldwide.

The WHO working group initiated the project with a survey that was promoted through WHO regional offices and the ISBT Working Party on Haemovigilance (WP). The survey was designed to capture current information about the status of national haemovigilance systems in all WHO member states and identify the challenges and barriers to implementation as well as the priority areas for technical support. Responses to the survey indicated barriers of lack of financial resources and the need for trained personnel. Priorities for support included educational materials and resources, infrastructure and technology updates, and financial support. The working group prioritized its initial work on educational resources for establishing haemovigilance systems and training personnel.
Building on the structure of the Aide-mémoire and the checklist therein, the working group sought materials from throughout the globe. Many of these resources were in existence within established haemovigilance systems. Rather than building static materials, the working group decided to compile existing resources and make them available publicly where they can be refreshed, amended, and expanded over time. This is described in the *WHO User guide for navigating resources on stepwise implementation of haemovigilance systems (User Guide)*.
The User Guide defines the realm of vein-to-vein safety surveillance and suggests a stepwise progression from a haemovigilance pilot to full implementation of a national haemovigilance system over time.
The User Guide further establishes the principles and building blocks of haemovigilance and provides examples of basic tools to get started, such as the Deming cycle for continuous improvement (Plan, Do, Check, Act)[4].

The resource compendium is structured to include topics of
1) Leadership and Governance,
2) Organization and coordination,
3) Haemovigilance in the donation and provision of blood and blood products, and
4) Haemovigilance in clinical transfusion.

The *User Guide* explains how member states and the public can access these resources, which include presentations, videos, and guidance documents that are made available either through partnership with ISBT, on the ISBT Working Party for Haemovigilance website, or the Notify Library website, also a WHO partner.

To keep resources current and relevant, the ISBT WP will establish a subcommittee, with defined processes and procedures, to be responsible for the resource compendium. The ISBT WP intends to seek volunteers to participate in this process. This framework will offer opportunities for professionals, especially young professionals, to engage in and learn more about haemovigilance and to seek out new additions and improvements to the ISBT compendium.

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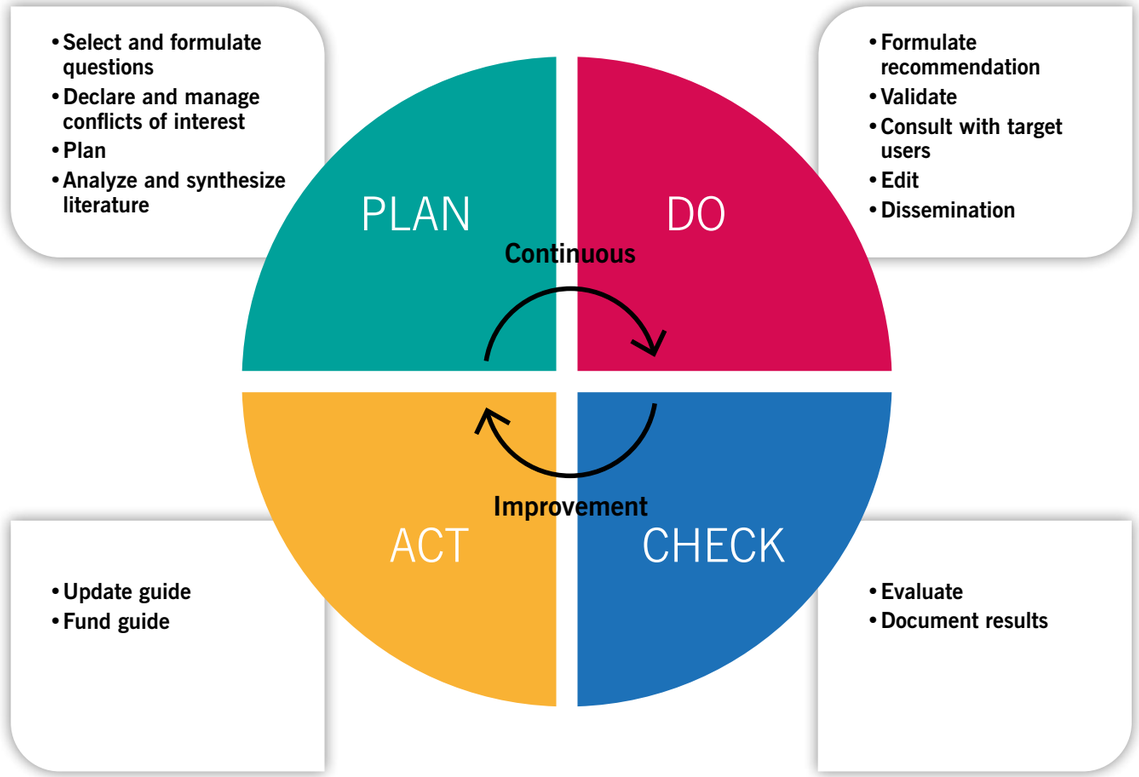

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Transfusion related adverse events in children – a collaborative study

Several studies have suggested that pediatric patients may have a higher predisposition to transfusion reactions as compared to adults. However, this association may be harder to garner primarily due to lack of paediatric and neonatal-specific definitions for transfusion related adverse events and underreporting of transfusion reactions in children. Preterm and low birth weight neonates are some of the most frequently transfused pediatric patients1. These group of patients are highly vulnerable with respect to transfusion due to their immature immune system, constantly changing/ growing organs, and complex clinical presentations. Adverse reactions to transfusion in this vulnerable group is reported to be even higher when compared to adult population2,3. In addition, newborns have the longest survival potential after transfusions, hence making them prone to long term complication of transfusion therapy.

A collaboration between the Pediatric Transfusion subgroup of the Clinical Transfusion Working Party and the Hemovigilance Working Party of ISBT will provide a great opportunity to highlight and work closely on some of the unique issues relevant to transfusion of the pediatric and neonatal patients.

Some of the following aspects are critically important regarding transfusion in children and they may be considered areas of focus of this collaboration:

1 Presentation of adverse reactions (type and demography) in children can be different and unique when compared to adults.

a Allergic reactions in pediatrics are reported to be most common as well as have higher incidence when compared with adults. A multicentric study from US reported 3.23 per 1000 children vs 0.72 per 1000 adults.[2] Similar data of higher incidence of allergic reactions in children are reported from UK, Brazil, and Japan[4,5,6,7].

b Pulmonary reactions (TRALI & TACO), although not very commonly reported in children, (3) needs age-appropriate definitions and diagnostic criteria as they have been adopted from adults[7,8].

c Transfusion Associated Graft Versus Host Disease is a specific risk to fetuses receiving intrauterine transfusions, children undergoing stem cell transplants, or those receiving HLA matched platelets. The mitigation strategy includes use of irradiated blood products for such indications. Selective or universal irradiation for providing blood to neonates and pediatric populations is still argued[9].

i Electrolyte/ metabolic complications of transfusion is common due to immature liver of the neonates. Hypocalcemia (due to citrate use), hypoglycemia (following use of dextrose-based solutions) and hyperkalemia (due to rapid infusions) are often encountered, and more work is required to establish mitigation strategies for the same[10.11]. Non classical complications are very specific for this age group and require more studies to understand the pathophysiology to establish the imputability with respect to transfusion[12.13]. RBC transfusion and necrotizing enterocolitis (NEC)

ii Association with bronchopulmonary dysplasia/ chronic lung disease, retinopathy of prematurity and intraventricular hemorrhage

iii Venous thromboembolism in children and neonates related to red blood cell transfusions[14,15].

d as well such as

i TTID is one of the major long term adverse reaction risks to transfusion in a neonate, although the relative risk for a TTID is very low in developed countries but it is a major concern for developing or underdeveloped countries.

ii Iron overload[16].

2 Role of pre-medications

Pre-medication have not shown any benefit in preventing allergic or FNHTR reaction in children. More studies will be required to better understand the pathophysiology as well as formulation of the prevention strategies[17].

3 Addressing other factors which are unique for transfusing a newborn and play a very important role.

a Component modifications

i Application of pathogen reduction, use of platelets additive solutions and storage of blood components need to be further studied.

b Non-Immune hemolytic reactions

i Small-gauge needles

ii Blood warmer malfunction

iii Co-administration of incompatible fluids with blood

This association among pediatric transfusion subgroup of the clinical transfusion working party and the hemovigilance working party of ISBT will provide a platform for the further studies on immunomodulatory impact of transfusions on this vulnerable age group as well as conduct collaborative work on epidemiology of adverse events and harmonizing age-appropriate internationally acceptable definitions of transfusion reaction in neonatal group of patients.

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In Focus V is for Vigilance

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Standardizing imputability determination across donor HVS: Is now the time?

Many organizations such as Association for the Advancement of Blood & Biotherapies (AABB), International Haemovigilance Network (IHN), ISBT, and WHO have worked – often together and alongside regulatory officials – to standardize Hemovigilance (HV) terminology. Standardized definitions are critical for comparing data across haemovigilance systems (HVS) and its need was easily demonstrated during the validation for donor HV definitions in 2017.[1] HV experts around the world were asked to apply the then proposed standardized case definitions and the existing (and optional) severity and imputability definitions to a set of standard cases. During the validation, low inter-observer variation was seen for many definitions, however, wide variation was seen in the application of both severity and imputability grading systems.[2]

Recently, an updated severity grading tool has been validated [3] which uses a grading scale built on the Common Terminology Criteria for Adverse Events (CTCAE) framework. The framework uses four objectively determined elements – the use of outside medical care, the type and extent of treatment, the duration of symptoms, and the impacts to activities of daily living from the donor's perspective – to assign severity from Grade 1 to 5. Grades 1-3 loosely correlate with the previous mild, moderate, and severe terminology, Grade 4 implies immediate medical intervention is required to prevent death (e.g. is life threatening), and Grade 5 is death. While still optional, the new Severity Grading Tool provides much better inter-observer reliability, has been endorsed by several organizations, and is beginning to be adopted. As special thanks to all participants for the success of this important work.

The community now is considering how to improve imputability grading. Why is determining imputability important? Imputability is not about assigning blame, but on identifying to what degree which factor(s) were involved in a specific adverse event. This is valuable in providing information which can be used for donor education, staff training, and helping drive process improvement to reduce future adverse events.[4] Determination of imputability implies that sufficient information has been gleaned from an adverse event (AE) investigation to deduce any (potential) causal link(s) and how these tie into the act of donation.

The legal term to Impute (v) means to attach responsibility (and potentially liability) for acts or injuries to another. For example, consider a mother driving a car which collides with a truck and results in the injury of her baby. Who bears responsibility for the baby's injury and how can the injury be prevented in the future? What if the mother was distracted with her phone and ran into the back of the truck? This would impute the mother and would suggest that drivers should not be distracted with phones while driving.

What if the truck driver runs a stop sign and hits the mother's car? This would appear to impute the truck driver. Imputability, though, is often not clearly ascribed to one entity and asking "Why?" a few times often uncovers these other factors. In the second example, what if the baby was not strapped in a safety seat, but on the mother's lap? What if the driver was speeding in order to meet his manager's delivery time expectation and the truck's brakes were recently installed incorrectly by a mechanic?

Many have heard the adage "Correlation does not imply causation, but causation always implies correlation." Correlation means that there is a statistical relationship between (at least) two variables, such as an action and an outcome or condition. These variables can be associated for a variety of reasons besides causality. Timing, temperature, study design, sampling size, and population studied (e.g. socio-economic status and/or ethno-racial factors) are all common ways unaccounted variables can lead to wrong assumptions about why two variables are statistically related. In statistics, this is termed the third variable problem.

Consider the hypothetical headline "Increased ice cream sales linked to more sunburns." But is there direct causal relationship between these two variables? The confounding variable "hot summers" is the causal link but if not considered, policy makers could misinterpret the data, draw wrong conclusions, and implement ineffective preventative measures by limiting ice cream sales instead of more effective measures such as launching a sunscreen media campaign during the summer.

Causation, on the other hand, means a change in one variable brings about change in another variable, e.g. action or agent A is necessary and sufficient to result in outcome B. In HV, distinguishing between adverse events (AE) and adverse reactions (AR) helps separate causation from correlation. Although we often use the terms interchangeably, ARs are technically a subset of AEs in which a causal link is suspected between some event (such as donation) and a subsequent unfavorable or unintended sign or symptom. The working definitions for AE, AR, and SADR are provided in Table 1.

Table 1

Term	Working Definition
Adverse Donor Event (AE) [5,6]	any unfavorable or unintended sign (including lab test), symptom, or disease associated with blood donation. It includes all adverse reactions, incidents, near misses, errors, unplanned deviations from SOPs and accidents.
Adverse Donor Reaction (AR) [7]	a subset of ADEs where a causal relationship is suspected between an unfavourable or unintended subsequent sign, symptom, or disease and blood donation that is severe enough to draw attention. May or may not require intervention.
Serious Adverse Donor Reaction (SAR) [8]	An adverse donor reaction that is fatal, life-threatening, disabling, incapacitating, or which results in, or prolongs, hospitalization or morbidity.

Any objective framework for Imputability determination with the context of donor haemovigilance must include some evaluation of both donation-related and non-donation related factors (Image 1). Besides the donation event itself (e.g. needle-in to needle-out), donation-related factors include the quality of the environment (spacing, temperature control, noise, lighting, uneven floor, etc), staff experience and training, operating procedures (how many times and under what conditions the needle can be repositioned), and availability of resources to mitigate AR risk (pre-donation fluid, cool rags, etc). Non-donation-related factors include donor anatomy, age, body mass index, underlying medical condition(s), and

Image 1

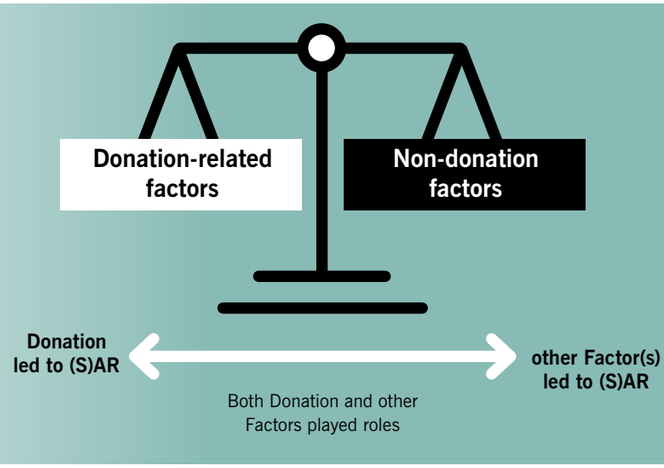

Table 2

Grade	Definition	Example
Definite or certain	When there is conclusive evidence beyond reasonable doubt that AR can be attributed to donation	Immediately after the needle is removed, a small hematoma forms under the puncture site.
Probably or likely	When the evidence is clearly in favor of a relation between AR and donation	Donot calls back 4hrs after uncomplicated donation stating she has a bruise near the donation site. She noticed it after bumping into a car in the parking lot. She states she bruises easily.
Possible	When the evidence is inderminate for attributing the complication to the donation or an alternative cause	2 hours after donation while working in an unconditioned warehouse during the summer, donor passes out. Several of his co-workers who dit not donate, also passed out.
Unlikely or doubtful	When the evidence is clearly in favor of attributing the complication to other causes	Donor stumbles down the staircase 30 min after she left the blood drive, causing a laceration on her scalp. Her boyfriend states she did not pass out or appear dizzy but was distracted with her phone.
Excluded	When there is conclusive evidence beyond reasonable doubt that complication can be attributede to causs other than the donation	Donor called to state a rash developed on the same arm used for donation the day following donation. Further investigation reveals he likely was exposed to poison ivy during a hike that morning along with other hikers.

post-donation behavior or just plain bad luck. Imputability is currently determined using a 5-point Likert scale ranging from a definite or certain causal relationship between donation and an AR to a causal link between donation and AE has been excluded beyond reasonable doubt. The current recommendation is that at a minimum, imputability should be reported for Severity Grade 2 (e.g., moderate) events or higher with cases of imputability grading Possible, Probable, or Definite being identified for further analysis. Table 2 summarizes the current Imputability scale with definitions and examples for each grade.

In the near future, a taskforce will be formed to consider revisions to the donor haemovigilance imputability grading system with the goal of providing a simple, objective framework with high inter-observer reliability. Once completed, the HV community will have a complete basic set of objective definitions to fully describe donor HV adverse events in the three dimensions of diagnosis(es), severity, and imputability. This should improve the ability to compare donor HV data and hopefully drive next generation HV database design. The IHN, for example, hope to use these improvements to design the next iSTARE database. Case report writing should be easier as well. With objective, well-defined resources, staff will be better equipped to include succinctly pertinent positive and negative elements that are needed to improve diagnostic accuracy.
If you are interested in participating in the Imputability taskforce, the Haemovigilance working party, or any working group, please reach out to ISBT.

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Long term complications of transfusion

Although blood transfusion is a safe treatment, it is always associated with a few adverse effects. These adverse effects can be either immediate or delayed. Delayed type adverse reactions, such as delayed hemolytic transfusion reaction, transfusion associated graft versus host disease, and post transfusion purpura, are examples of short-term type adverse reactions that might impact the patient for a short period of time and cure after therapy. While a few delayed consequences, such as alloimmunization, iron overload, and transfusion-transmitted infections, can be classified as long-term complications.

Alloimmunization

Alloimmunization is the most common long-term consequence of blood transfusion, in which allo-antibodies are formed after the blood transfusion and most of them are persist in patients' plasma for the rest of their lives. These alloantibodies can be clinically significant, causing hemolytic transfusion reactions in subsequent transfusions. More than 30% of patients who have multiple transfusions may acquire alloantibodies, which can cause serious problems with future transfusions. The number and frequency of transfusions, as well as the recipient's age, gender, and illness status, can all influence this alloimmunization.

Iron overload

Iron overload is unavoidable in people who get regular RBC transfusions for congenital or acquired diseases. Each unit of red blood cells transfused raises the body's iron level by around 200-250 mg. Regular red cell transfusions are required for children with thalassemia major (TM), sickle cell anaemia, or other genetic illnesses such as Diamond–Blackfan anaemia (DBA), congenital dyserythropoietic anaemia (CDA), and congenital aplastic anaemia. Adults suffering from haematological illnesses such as severe aplastic anaemia (SAA) or myelodysplasia syndrome (MDS), as well as cancers such as leukeamias and lymphomas, may become dependent on regular red cell transfusions. Iron is first sequestered in conventional storage sites, primarily the reticuloendothelial systems such as the liver and monocyte–macrophage, but after these are saturated, iron begins to deposit in other organs such as the endocrine glands and the heart. Because the body lacks an adequate method of removing excess iron, cirrhosis, heart disease, diabetes, and other illnesses develop; death is frequently the result of cardiac failure. With the advancement of chelation therapy and patient blood management regimens such as anaemia treatment with pharmacological agents or restrictive transfusion therapy, there is a better chance of survival.

Transfusion-transmitted infections (TTIs)

Transfusion-transmitted infections (TTIs) were historically mostly associated with chronic infections such as HIV, hepatitis B virus (HBV), and hepatitis C virus (HCV). The primary characteristics that predispose an infectious agent to be transferred by transfusion were latency in blood cells and viral carriage. Several acute or chronic infections, such as Cytomegalovirus, Human T cells lymphoma virus (HTLV), West Nile virus (WNV), parasitic and spirochete infections, have lately posed a concern to blood safety when they appeared at high prevalence in certain populations. TTIs affect numerous organ systems of the body throughout the rest of one's life, such as HIV, which affects the immune system, and hepatitis, which affects the hepatobiliary systems, among others. Long-term sequelae of these transfusion-transmitted diseases include immunosuppression, cirrhosis, neurological degenerations, and other conditions that might lead to the patient's death. in certain populations. These TTIs affects various organ systems of the body almost till the lifetime such as HIV affect the immune system, hepatitis affects the hepatobiliary systems etc. the long-term complications of these transfusion transmitted infections are such as immunodeficiency, cirrhosis, neurological degenerations etc. which can ultimately lead to death of the patient.

To summarise, these long-term complications of blood transfusion might have an impact on the recipient's quality of life as well as life expectancy.

Shruthi Narayan
Serious Hazards of Transfusion (SHOT), UK

Importance of human factors in improving transfusion safety

Human factors and ergonomics (HF/E) have been defined by the International Ergonomics Association as "the scientific discipline concerned with the understanding of interactions among humans and other elements of a system, and the profession that applies theory, principles, data, and methods to design in order to optimise human well-being and overall system performance"[1]. This is because outcomes in any system are a result of these interactions rather than due to any single element in isolation. The following interrelated aspects in any system must be considered in order to optimise performance and safety[2]:

Figure 1: Factors in any system affecting human performance and safety

The job/task	Nature of the task, workload, the working environment, the design of displays and controls, and the role of procedures. Tasks should be designed in accordance with ergonomic principles to take account of both human limitations and strengths. Mental aspects would innclude precepptual, attention and decision making requirements
The individual	Staff skills and competence, personality, attitude, and risk perception. Individual characteristics influence behaviour in complex ways. Some characteristics such as personality are fixed; others such as skills and attitudes may be changed or enhanced
The workplace	Work patterns, the culture of the workplace, recources available, communications, leadership and so on. Such factors are often overlooked during the design of jobs but have a significant influence on individual and group behaviour

There are several HF/E frameworks that can help adopt a systems perspective. The Systems Engineering Initiative for Patient Safety (SEIPS) is a frequently used framework that has been designed specifically for healthcare[3,4]. SEIPS can be used to describe how the elements of a work system interact, and how these interactions deliver processes, which in turn lead to outcomes (see Figure 2).

Blood transfusion is a critical element of medical and surgical therapies. Transfusions are very safe and effective when used appropriately. The risk of death from transfusions in UK is very low despite the steady increase in the number of reports submitted to Serious Hazards Of Transfusion (SHOT), the UK's independent professionally led haemovigilance scheme, year on year[6]. Changes in transfusion practices have resulted in a reduction in pathological transfusion reactions and deaths from infections. Pulmonary complications and delays in transfusions are now the main causes of transfusion-related deaths in the UK and >80% of the reports submitted to SHOT are relating to transfusion errors. Ensuring transfusion process safety is as important as blood component safety and quality.

Transfusion is a complex multistep process involving members of several different professional groups i.e., nurses, doctors, laboratory scientists as well as the donors and recipients. Potential for serious problems exists at each step in the process of transfusion and learning from incidents

In Focus V is for Vigilance

Figure 2:
The Systems Engineering Initiative for Patient Safety (SEIPS) model

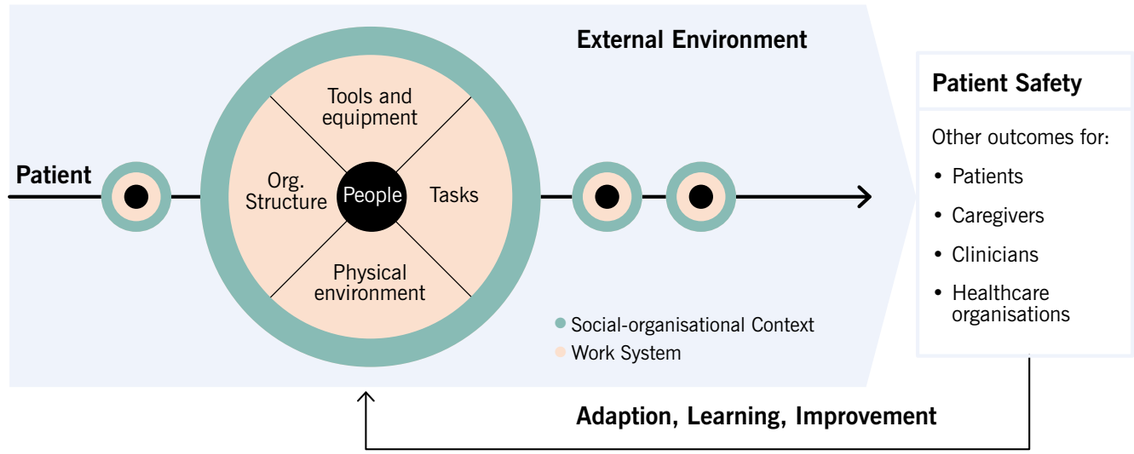


Figure from 'The White Paper on Human Factors and Ergonomics in Healthcare AI' from the Chartered Institute of Ergonomics and Human Factors[5]

reported should drive improvements in healthcare (see Figure 3).

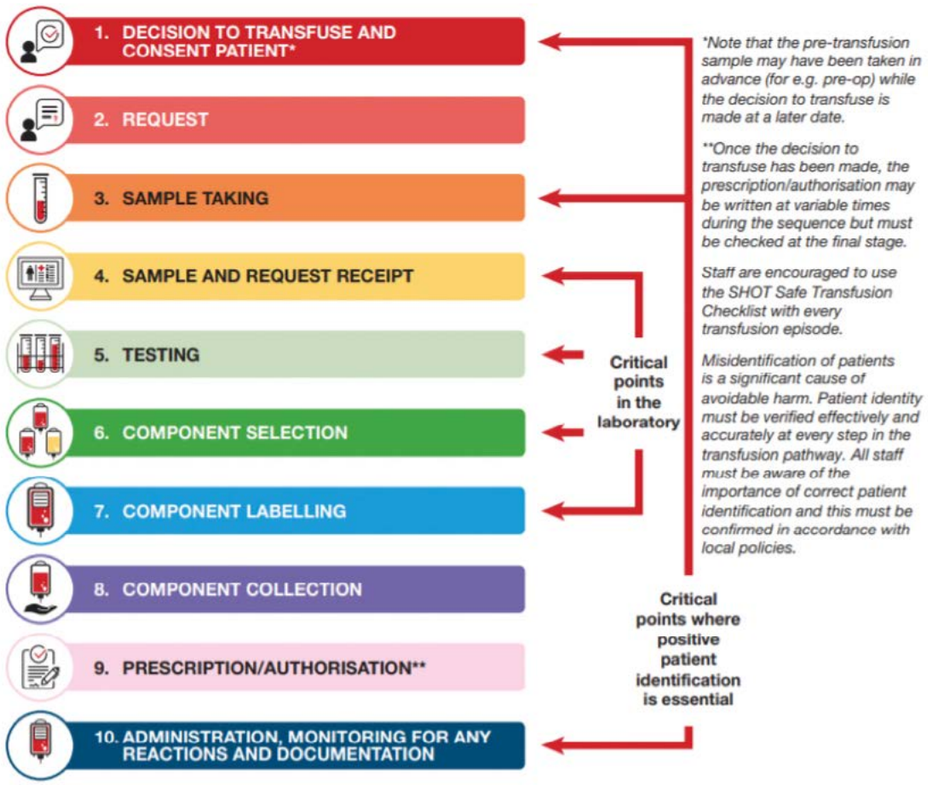
Human factor (HF) approaches should underpin all patient safety and quality improvement practices especially in transfusion, offering an integrated, evidence-based and coherent approach to safety, quality and excellence of care provided.

HF principles should underpin system design in healthcare such as:

- Simplify- removing unnecessary steps in any process making it simpler and easier for staff to follow
- Standardise- removing variation and confusion, providing clarity, prompting predictability and consistency
- Using forcing functions which make it impossible to do a task incorrectly and constraints such as checks, restrictions where staff are compelled to avoid or perform some action
- Avoiding reliance on memory and using checklists effectively
- Automating- using technology appropriately with adequate staff training to improve efficiency and enhance patient safety

In addition, HF principles-based approach to incident investigations help provide a safe transfusion service and prevent patient harm. Effective incident investigations should help reduce error, improve practices and lead to safer systems. Learning from experiences can prevent harmful incidents from recurring- safety is enhanced by learning from all incidents. Introduced into SHOT reporting in 2016, the Human Factors Investigation Tool results have shown that investigations disproportionately blame individuals while system failures are overlooked6. Healthcare organisations need to continuously develop systems that recognise and deal with people in a 'just' way, acknowledging through learning to support the changes required when people make errors. The framework of a just culture ensures balanced accountability for both individuals and the organisation responsible for designing and improving systems in the workplace. To truly improve practice, provide safe processes and reduce risk, a systems-based approach to investigating incidents is required with consideration of all human factors.

Figure 3: Ten steps in transfusion



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From the President

Welcome to this edition of Transfusion Today, with contributions from all around the world and a special focus on haemovigilance, coordinated by the ISBT Working Party on Haemovigilance.

Different definitions of haemovigilance exist internationally, but all emphasise recognition, reporting, analysing and taking action on undesirable consequences of blood donation and transfusion, with a view to improving safety and quality across the whole transfusion chain. Sharing haemovigilance reports and analyses widely in a 'no blame' and learning culture provides important opportunities for all of us to understand what the real risks of blood donation and transfusion are, and to focus our efforts on prevention.

Haemovigilance has always existed, but awareness of the need for more defined concepts and definitions, and organised and structured efforts, really coalesced in the 1980s in response to the consequences of transfusion-transmitted infections such as hepatitis and HIV. In 1993 Japan was the first country to establish a national haemovigilance program, France followed in 1994, and many others have been developed since. The European Haemovigilance Network was formed in 1998, bringing together haemovigilance systems existing at that time, and became the International Haemovigilance Network (IHN) in 2009 and has continued to expand. In some countries or regions, such as Europe, many aspects are now written into national practice guidelines and laws, emphasising the importance and value of meaningful haemovigilance.

In many countries adequate supplies of safe blood for transfusion are now available, and these are major achievements, reflecting investments in blood sufficiency and safety world-wide and over decades. However, it is recognised that many of the most serious hazards related to transfusion are due to errors – for example, administering the wrong product to a patient, or administering a product to the wrong patient. In some cases, ABO-incompatible transfusions or other serious consequences may result. In large part, human factors are now understood to be central to these events, which have proven difficult to address.

The field of human factors, sometimes called ergonomics, focuses on understanding how people engage with their environments. In healthcare there are many elements that influence this engagement, including the physical environment, technical aspects such as equipment and the processes being used, as well as workplace culture and communications. It makes for a very complex situation in which we are practising transfusion medicine. Interruptions, inattention, fatigue, under-staffing, and individual and group assumptions, expectations and attitudes are commonly included in haemovigilance reports as contributing to errors. Certain patient groups, such as neonates, children, the elderly, and the chronically transfused are recognised to be at particular risk. Improved training and competency assessments are important, and can strengthen both process and clinical practice, but by themselves are insufficient to eliminate risk. New technologies offer some opportunities to make transfusion systems more robust, but these are often perceived as too expensive for implementation, and are not fail-safe themselves. We can certainly do more. Engaging patients and their families in transfusion decision-making and the transfusion administration processes is not only central to good clinical practice, but may reduce patient identification and other errors, and improve reporting of adverse reactions and other concerns. However, more work remains to be done until this is fully implemented into practice in many settings.

Haemovigilance truly requires a multidisciplinary team effort: transfusion nurses/practitioners (TPs), medical scientists, and physicians of course, as well as the data managers who enable our reporting and analysis, the expert clinicians from all disciplines who provide their vital content expertise, the donors and patients who provide their lived experiences on behalf of the community, the trainers, the auditors and quality managers, the policymakers, and the management representatives who are tasked with implementing haemovigilance recommendations such as process re-design, so that our systems are more resilient and blood donation and transfusion is as safe as it can be. Thank you to everyone working to make transfusion safer. All around the world, this is haemovigilance in action.

ISBT recognises the important of haemovigilance and is very active in this area. Our Haemovigilance Working Party welcomes individual ISBT members to participate in a wide range of activities, from developing and validating haemovigilance definitions, to surveys of practice, to education and training, and hosting sessions as ISBT congresses. There are donor- and patient-focussed subgroups, and collaborations with the other ISBT Working Parties (for example, on paediatric haemovigilance, with the Working Party on Clinical Transfusion). Many members of the ISBT TP subgroup of the Clinical Working Party work in haemovigilance roles, and the TP group welcomes engagement from haemovigilance officers and those working in similar roles. We also have many connections with external partners, including IHN and the World Health Organization, and with national societies and haemovigilance programs around the world.

I encourage you to read the articles in this edition and consider how you can get involved in ISBT's haemovigilance efforts. You will be very welcome, and your contribution will really make a difference.

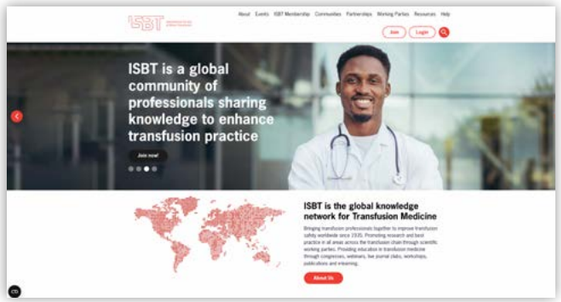
Membership renewal

The start of a new membership year is once again upon us and it's time to renew your membership. We thank you for your support in 2021. This year we are happy to introduce you to our new website for a fresh and improved experience.

Above all, you will continue to receive all the benefits below and more:

- The latest news in transfusion medicine via our monthly Enews, Education news and access to Vox Sanguinis our high impact journal and quarterly magazine, Transfusion Today
- Free access to ISBT Education. ISBT supports your development by providing educational programmes, scholarships and CME accredited activities. Watch past congress webcasts, webinars and presentations, live journal clubs and more
- Discounts on registrations for ISBT congresses, regional, international and virtual.
- Earn CME and CPD credits by attending live webinars, live journal clubs, congresses, workshops or by watching course recordings on your own schedule. Use your ISBT CPD record to organize and evidence all your CPDs – available to members only
- Access your membership via the ISBT App where you have instant access to our publications, webinar registrations, working parties and young professional groups, details of upcoming congresses, updates and different activities
- Have a chance to apply and join a working party or the young professional council and more

If you have not yet visited the website and are logging in for the first time, please follow the instructions. →



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There is nothing like new beginnings.
We have redesigned the ISBT website to ensure the access of your member benefits are only a click away.
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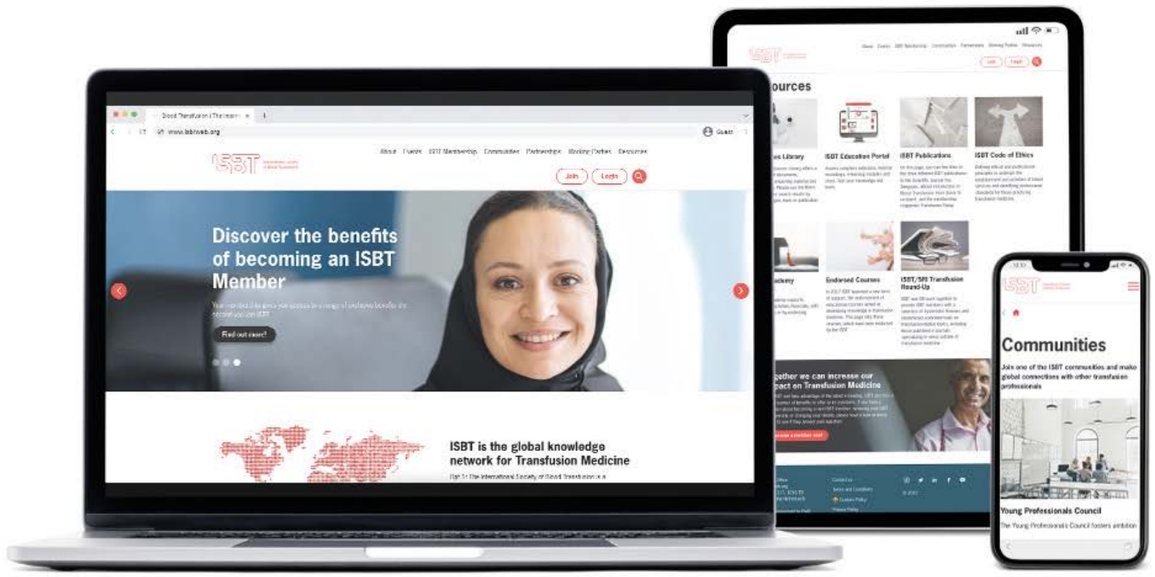

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Member Spotlight Q&A

To kick off a new series of ''member spotlights Q&A'', Prof. Jason Acker, the incoming ISBT Scientific Secretary (2002-2025) has kindly answered our questions giving an insight to his career, interests and journey with ISBT. Jason will taking up his post in June 2022 and is currently working alongside Prof. John Semple the current Scientific Secretary leading up to the ISBT 2022 virtual congress.

Jason Acker

1. What started your interest in Blood Transfusion?

As a graduate student working in a cryobiology research lab, I was pulled into various projects that were looking at improving the methods used to cryopreserve hematopoietic stem cells. While my thesis work focused on studying ice formation and its contribution to cryoinjury, these side-projects really helped me appreciate the need for improvements to the quality of stored blood products. After my post-doctoral fellowship in Boston, I was invited by Canadian Blood Services to join their research team and apply my expertise in cell stabilization to help improve blood product quality. From there, I quickly became fascinated with how quality was impacted by so many of the choices made across the vein-to-vein continuum and how these can impact transfusion recipient outcomes.

2. How did this interest develop and what are your main topics of interest now?

I have been very fortunate to have been able to participate and lead several innovative programs at Canadian Blood Services that have helped me apply my training and experience in medical sciences and technology commercialization to solve important technical and scientific challenges that we face in transfusion medicine. This includes the development of pioneering blood product quality testing programs and a product and processes innovation centre that has allowed us to generate new knowledge and apply that to changes within the blood manufacturing facility and hospital transfusion services.

My research team is currently working with collaborators to understand how blood donor factors (age, sex, ethnicity, frequency of donation) and changes to donor screening affect the quality of red blood cell products. Our focus has been on understanding the biological effects that donor-associated changes have on blood components to determine if changes to donor screening, blood component manufacturing or storage can be used to enhance the safety and quality of our blood products. In addition, we are contributing to national studies linking data on donors, products and recipient outcomes. This information can inform clinical studies to better understand transfusion and blood product utilization. In addition, we are working with international partners to develop innovative tools to examine non-invasively the effects of donor factors on the quality of blood cells.

3. What have been the most rewarding times in your career?

Research can be an unforgiving endeavor and one must be pathologically optimistic to be successful. Discovery, whether it is a new idea or a solution to a difficult problem, has been a common element in many of the most rewarding times in my career. In our exploration of how cells survive stress, I have been fortunate to have made observations that have challenged long-standing tenets and experienced the thrill of seeing how that has changed what is written in text books. Celebrating with international colleagues after a manuscript is accepted in a high-impact journal makes all of the funding and operational challenges and long hours in the lab worth it. Equally rewarding has been witnessing the growth in confidence, skill and knowledge of the 300+ trainees that I've had the privilege of mentoring. I take great joy in seeing all of them succeed and go on to do great things!

4. What made you decide to apply for the post of Scientific Secretary of the ISBT?

We all remember that first ISBT congress that we attended. The excitement that we had in realizing that there was a global community working to build the evidence-base needed to deliver on the promise of a safer blood system. Being able to attend scientific, technical and education sessions that opened our eyes to the complexity of blood transfusion and introduced us to the passionate and inspirational knowledge leaders that are making an impact. We had the opportunity to make new acquaintances, develop new collaborations, see the latest technologies, hear from world experts and explore a new part of the world. As the ISBT Scientific Secretary, I would have a role in helping to define what that first ISBT congress experience is for the next generation of transfusion medicine professionals. How exciting is that!

5. What are your personal goals in relation to ISBT?

I am personally looking forward to meeting new people from around the world and learning about the challenges and opportunities that they face in their own blood / transfusion services. By sharing experiences, we can all benefit from the collective wisdom that exists in our community.

6. What energizes you most at work?

What energizes me is the knowledge that through the work of my team and my collaborators, we have a direct impact on the lives of transfusion recipients. The technical and scientific support we provide helps Canadian Blood Services make critical decisions about the quality of the products that we are collecting, manufacturing and distributing. Our basic discovery work is translated into new processes, technologies or commercial products. As a research scientist with Canadian Blood Services, I can look back at our accomplishments every year and see how we have had the opportunity to have a measurable impact on the lives of Canadians.

I also gain great inspiration from working with really smart, engaged and motivated trainees and colleagues. There is nothing more infectious than the energy that comes from interacting with a diverse team of people with broad experiences and knowledge that are collectively working together to solve hard problems.

7. What do you do in your spare time?

In my spare time you can find me spending time outdoors hiking, camping or biking with family. As a glider pilot for more than 30 years and the chief flying instructor at my local soaring club, I enjoy spending weekends either teaching people how to fly gliders or heading out on my own across the Alberta prairies for a "dance amongst the clouds".

8. Finally, is there anything you to add or to say to our Transfusion Today readers and ISBT members?

The field of transfusion medicine and blood manufacturing are undergoing rapid changes as we adapt to new realities of a post-pandemic world. As a leader in transfusion medicine education and knowledge sharing, ISBT will play a critical role in re-connecting our communities to solve local and global challenges that will improve transfusion outcomes. Now, more than ever, we are looking to our community to deliver innovative solutions to guide this transformation. I would encourage all ISBT members and our partners to find new ways and renewed energy to engage with our community to help deliver on our mission of "A world of safe and sufficient blood".

From ISBT Central Office

ISBT 2022 Virtual - 37th International Congress of the ISBT

Join us for the 37th International congress of the ISBT 2022 Virtual! We have a full scientific and educational programme bringing together the latest research and developments, and plenty of opportunities to interact at meet the expert and networking sessions.

Time zones are always a challenge with virtual meetings, but we have planned the sessions in two blocks per day, spanning time zones so that it is possible to participate in a great selection of live sessions from anywhere around the world. Delegates registered for the live congress will be able to catch up on anything that does fall at an anti-social time with minimum delay as the all sessions will be published on-demand on the platform within 24 hours of broadcast.

The format has been optimized for a virtual audience with slightly shorter presentations and sessions but retaining the live Q&A that is so much part of all ISBT congresses. In addition to the Q&A, it will be possible to click into breakout rooms after some of the live sessions to recreate the experience of meeting up in the lobby to discuss the session with speakers and other delegates, something we all miss!
There are two live streams running over 5 days, with >60 scientific sessions in the areas of Blood Products, Blood Safety / TTID, Clinical Transfusion, Cellular Therapies, Donors and Donation, Immunobiology, Management and Organisation.

Plenary sessions include two exciting award sessions featuring ward lectures from the winners of the prestigious ISBT Presidential Award and the Jean Julliard Prize. (see below for details of the 2022 winners)

See the full scientific programme here
www.isbtweb.org/events/isbt2022/programme.html

In addition to the main scientific programme there will be two networking sessions organised by the Young Professionals Council and the Transfusion Practitioners allowing us to get together to meet old friends and make new connections. Also, 'Meet the Expert' sessions, e.g. in clinical transfusion and immunohaematology where you can ask your questions and take part in discussions in a more informal setting.

We are also planning a virtual congress party! This is also a great opportunity to catch up with ISBT's sponsors and partners, and to attend sponsored sessions to discover the latest innovations from industry.

The early registration discount is available until 13 May 2022 don't miss it!

REGISTER NOW

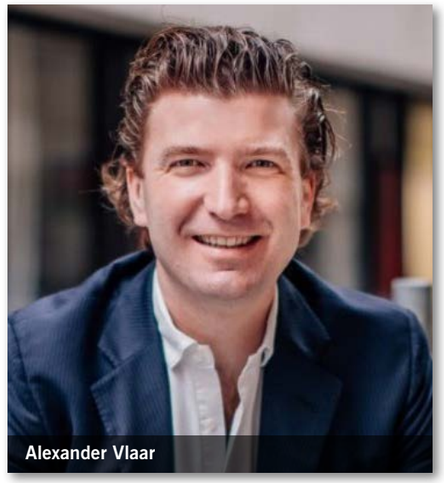
ISBT Awards and Prizes


Nancy Heddle

ISBT Presidential Award

The ISBT Presidential Award was instituted in 2000 and is managed by the Board of the Foundation Transfusion Medicine, The Netherlands and ISBT. It is presented at the biennial ISBT International congresses. It is a great pleasure to announce that the ISBT Presidential Award winner 2022 is Nancy Heddle, and we look forward to her award lecture "Three decades of transfusion research: the smallest trial, the largest and the outcome I shouldn't have used!" at the ISBT 2022 on 8th June 2022; Nancy is currently a Professor Emeritus in the Department of Medicine at McMaster University and the Research Director at the McMaster Centre for Transfusion Research. She has published over 225 scientific papers and given more than 260 presentations nationally and internationally. Nancy trained as a Medical Laboratory Technologist. She completed a Masters degree in Health Research Methodology at McMaster University in 1992 and set up a clinical research program in Transfusion Medicine at McMaster University in 2001. Her research has utilized both qualitative and quantitative methodologies with a focus on evidence-based and safe transfusion practices. Throughout her career she has been an educator, a researcher and a mentor, teaching transfusion science and research methodology to over 250 fellows, residents, graduate students and medical laboratory technologists. A teaching award in her name was created by the Division of Hematology at McMaster University and is given annually to a faculty member who demonstrates excellence in teaching. Nancy served as an Associate Editor for the journal Transfusion from 2004 to 2018 and initiated the Clinical Research Focus section for the journal as a resource to understand clinical research methodology. She has received 18 national and international awards including the International Woman in Transfusion Award (AABB, BBTS and ISBT), the Emily Cooley Award from the AABB and a Lifetime Achievement Award from Canadian Blood Services.

Jean Julliard Award

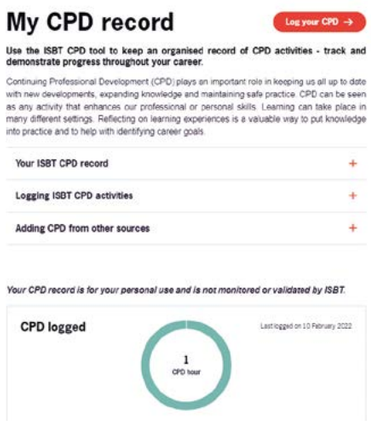

Alexander Vlaar

The Jean Julliard Prize was established in 1962 in memory of the Society's first Secretary-General and is awarded to a scientist (<40 years old) in recognition of recent and excellent scientific work in blood transfusion and related subjects. The Jean Julliard Prize 2022 winner is Alexander Vlaar for his exceptional work "Transfusion Associated circulatory overload - a breathtaking syndrome" and we very much look forward to his award lecture with the same intriguing title in the Jean Julliard award plenary session at ISBT 2022 virtual congress also on 8th June 2022. Alexander Vlaar. PhD, MD, MBA is professor Intensive Care Medicine (H-index: 31, 4.570 citation, > 220 articles) and principal investigator in intensive care medicine. The focus of his research is transfusion-related morbidity and mortality. His research lines consist, among others, of pre-clinical and clinical investigation in the field of antibody and non-antibody mediated transfusion related acute lung injury (TRALI) and transfusion associated circulatory overload (TACO). He is the chair of the international TRALI re-definition working group and chair of the ESICM Transfusion Task Force.

Educational page

2022 April

The current issue of Transfusion Today is dedicated to topics related to Haemovigilance. This educational page highlights articles that have been published in this topic. Each article has its reflective question to consolidate learning experience. If you are an ISBT member, why not record your CPD gained from reading these papers and the reflective learning you produce in response to the questions, in your new CPD record on the ISBT website.



The new donor vigilance system in Denmark reveals regional differences in adverse reactions supposedly caused by variation in the registration

Christina Mikkelsen, Helene Martina Paarup, Mie Topholm Bruun, Louise Ørnskov Pedersen, Sys Hasslund, Rune Larsen, Bitten Aagaard, Betina Samuelsen Sørensen
15 September 2021, https://doi.org/10.1111/vox.13202

Data on adverse reactions (AR) are continuously registered and regularly assessed, and have resulted in changes in policies, products and practises within transfusion medicine. In Europe, however, reporting of AR in donors remains voluntary and heterogeneous. In contrast, registration of the AR in recipients has been mandatory since introduced in 2002 in the EU Directive 2002/98/EC.

In recent years, there has been increasing work to align the donor vigilance systems in Europe and the rest of the world. ISBT's haemovigilance network, as well as large consortium projects, have worked towards proposing guidelines. In 2019, it was decided by the Danish Haemovigilance Committee to make one common national system for registration of AR in blood donors.
This study presents the results of a national registration system of AR in blood donors build on existing international definitions.

Are donor AR registered in your country? If not, what do you think the necessities and the challenges are of implementing a national register?

Complications of blood donation reported to haemovigilance systems: analysis of eleven years of international surveillance

Johanna C Wiersum-Osselton, Constantina Politis, Clive Richardson, Naoko Goto, Elisavet Grouzi, Giuseppe Marano, Kevin J Land
05 December 2020 https://doi.org/10.1111/vox.13048

The International Haemovigilance Network collects aggregate data on complications of blood donation from member haemovigilance systems (HVS) and developed the 'ISTARE' database (International Surveillance of Transfusion Adverse Reactions and Events) for annual capture of national aggregate haemovigilance data. The database includes spreadsheets for collecting data on complications of whole blood and apheresis donations as well as annual numbers of donations.
The present report is the first to publish information about such a large volume of data of reported donation complications, collected from member national HVS since 2006. Our aim was to learn from the data and consider future improvement of data collection.

Variability of reporting practices and of severity assessment between countries remains a challenge. How could the harmonization of the classification of donation complications and severity assessment for data comparison and research improved?

Arwa Z. Al Riyami
Arwa Al Riyami, Sultan Qaboos University Hospital, Oman

The impact of COVID-19 on young professionals in blood bank and transfusion services

The COVID-19 pandemic brought changes to daily life as measures to contain the spread of the virus increased across the world. As cases increased and the death toll surged, measures to contain the spread of the virus have escalated. The restrictions caused immediate disruptions to daily routines and individual well-being with the additional fear of long-term impacts.

The ISBT Young Professional Council (YPC) conducted a survey between September 2020 and January 2021 to assess the impact of the pandemic on young professionals (YPs ≤ 40 years) working in blood bank and transfusion medicine worldwide. A total of 402 YPs participated, of which 259 YPs completed 75% or more of the survey. Participants were from all World Health Organization regions. The majority of participating YPs were aged 35-40 years (34%), female (69.9%), and worked in a hospital-based setting (67.9%).

At the time of undertaking this survey, half of YPs reported wearing a facemask at work because it was mandatory. Further, 76.1% indicated that they regularly wore a face mask when outside their home but not at work. The majority (67.6%) indicated that they significantly engaged in social distancing. Almost two-thirds indicated that they frequently used a hand sanitizer and/or washed their hands regularly. As for physicians and nurses, most of the respondents felt moderately (42.5%) or very (33%) protected, with 55.1% indicated that they often had sufficient personal protective equipment (PPE) to protect themselves during work. However, 12.1% indicated that they never or rarely had sufficient PPE. Over 76% of the respondents reported having vulnerable family/household members who lived with them. More than half of these respondents (61%) indicated that they were substantially worried about infecting their vulnerable family/household members because of the nature of their work.

In terms of the psychosocial impact, 52.5% reported increased stress levels, and 15.4% indicated experiencing symptoms of depression. More than half of the YPs indicated loss of social engagement, and 46.3% indicated that they were spending little in-person time with friends, extended family members, and neighbors. Thirty-five percent of the respondents indicated that information seen on media negatively impacted their psychological well-being. Most of their concerns were related to the high transmissibility of the virus, related fatalities and the disturbed/disordered life caused by the pandemic.

Although a third of the YPs indicated that their organizations engaged in significant efforts to reduce the risk of employees acquiring the infection through their work, almost half of them ranked the provision of holistic support for the individual and their family should they need to be quarantined as moderate/occasional. Only 29.3% of YPs indicated that they had been asked to work from home, if possible, to minimize the risk of COVID-19 infection. However, 50.4% of YP indicated that they were asked to work in shifts in their workplace to minimize the risk of COVID-19 infection.

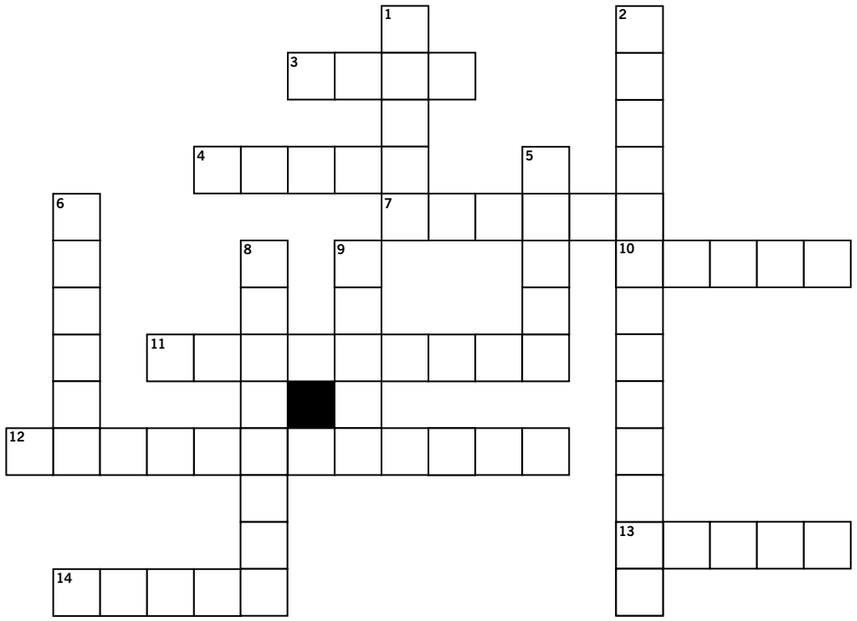
The COVID-19 pandemic had a major impact on YPs globally. Measures are required to ensure that YPs are protected and mentally supported while undertaking their duties in the current and in future pandemics. To read the full publication;

AZ Al-Riyami, et al. "Psychological impact of the COVID-19 pandemic on young professionals in blood banks and transfusion services: A global cross-sectional survey." Vox Sanguinis (2022).
https://doi.org/10.1111/vox.13236

B. Abhishekh
Blood Centre, JIPMER (Jawaharlal Institute of Postgraduate Medical Education and Research) Puducherry
India

Haemovigilance puzzle

Test your knowledge of Haemovigilance with this puzzle, This crossword puzzle is a contribution from the Clinical Working Party; the education subgroup.



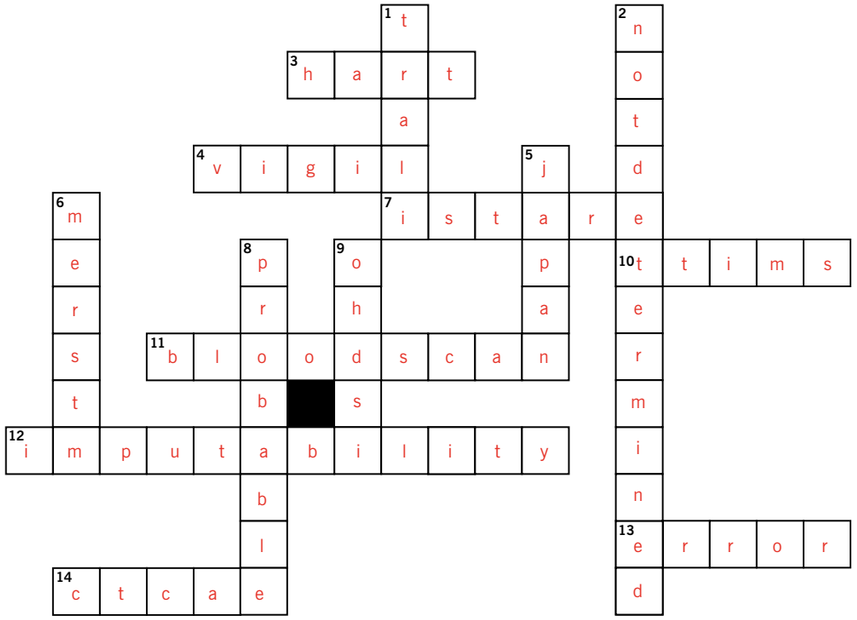
Across

3 Donor vigilance: close to the Heart
4 The Latin word for awake, wakefulness
7 I(German) shall watch rigidly
10 A national repository database for transfusion-transmitted infections(Titmus test)
11 US FDA's sentinel database tracking for Blood Surveillance
12 The degree to which the reaction is attributable to transfusion
13 Oops! Mistake...
14 2014 AABB-ISBT Donor adverse reaction grading tool is patterned after

Down

1 Most notable achievement and policy changing discovery of SHOT
2 The severity of the adverse reaction is unknown
5 The first country to aggregate information on adverse events as early as 1993 at a national level
6 Dr Harold Kaplan and James Battle's impactful incident reporting system
8 There are other potential causes present that could explain the recipient's symptoms, but transfusion is the most likely cause of the reaction
9 Odyssey: the program to improve health better by empowering the community to collect data and analyse to generate evidence collaboratively

Answers to haemovigilance puzzle



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Rejoy Penacerrada
Informa Markets – Healthcare
Dubai

Medlab Middle East Congress 2022

The onset of COVID-19, and the impact of the various variants associated with the pandemic, has severely impacted blood donations across many countries.

As part of a commitment to supporting the laboratory industry, blood transfusion formed an integral part of the Medlab Middle East Congress programme in 2022, with the Blood Transfusion Medicine Conference taking place in-person on 27 January 2022 at the Dubai World Trade Centre.

At the conference, A range of experts from the field outlined their findings and provided direction on the best course of action to encourage donors and ensure their safety at every point of the donation journey. Topics discussed included donor eligibility criteria with vaccinated and non-vaccinated individuals, the challenges of finding a blood donor with the same blood, and a review of methods and indicators for red blood cell transfusions with neonate.

Leading the conference was Dr May Raouf, Head & Medical Director, Dubai Blood Donation Centre, Pathology & Genetics Department, Expert Member for Transfusion Safety, WHO, Regional Director for Eastern Mediterranean Region, ISBT, Dubai.

During the track, a dedicated session focused on donors and donations with Dr Ranjita Sharma, Head of Medical Care Unit, Dubai Health Authority, providing an insight into the Donor Eligibility Criteria during pandemics and the lesson learned. Joining Dr Sharma was Dr Ravi Mangal Patel, Associate Professor of Pediatrics, Division of Neonatology, Emory University School of Medicine, Atlanta, Georgia, USA; who spoke about neonatal red blood cell transfusion.

The Blood Transfusion Medicine Conference was part of a line up of nine CME accredited multi-disciplinary laboratory conferences that took place at Medlab Middle East Congress across 4 days from 24-27 January 2022, in Dubai, UAE. The conference tracks also included Laboratory Management, Histopathology, Clinical Chemistry, Clinical Microbiology, Molecular & Genomic Diagnostics, Haematology and Covid-19 Updates.

After the live, in-person show, delegates also had the opportunity to attend an online-only bonus conference track, Future of Lab, which took place from 31 January to 2 February 2022.

Informa Markets, the organisers of Medlab Middle East Congress, have announced the MENA region's leading exhibition for the laboratory industry will return to a standalone event in 2023, taking place from 6-9 January 2023 following unprecedented demand from attendees for the 2022 edition of the show.

To learn more, visit medlabme.com/congress

Silvina Kuperman
President of GCIAMT

GCIAMT and its impact on the delivery of safe blood for the patients

GCIAMT is a non-profit organization founded in 1997, whose mission is to promote and facilitate the development of Transfusion Medicine for the benefit of the health and well-being of the population of member countries and to link together with Ibero-American professionals from Societies, Associations, Cooperative Groups, Institutions, Blood Banks, Hemotherapy Services, and Transfusion Organizations that are involved in all the activities related to blood banks, transfusion medicine and cellular therapies. Nowadays the GCIAMT has more than 800 individual members from all Ibero American countries. The relevant activities are: GCIAMT Congress every two years, participation in regional and local scientific and academic activities, publication of several books, recommendations, Quality Standards, Hemovigilance Manual, Expert Consultation and Virtual Library.

During 2021, for the first time GCIAMT carried out a systematized learning experience: The Basic Training Course for Clinical Research (Annual, 15 participants from different countries). In this course, the students were specially selected among candidates with professional training that indicated their possibilities to develop future research in Transfusion Medicine. We also had an annual course in Immunohematology called "The best practices based on evidence" with 250 attendees. The main objective of the immunohematology course was to provide an educational experience through practical and up-to-date information relevant to transfusion medicine. This type of educational activity motivates participants to update and improve their work routines. Participation encouraged students to seek the best possible quality. The classes were designed taking into account the local scientific structure and its ability to transfer new knowledge to the daily practice of patient care.

In commemoration of World Blood Donor Day in 2020, the 1st Ibero-American Summit was held. Leaders from Latin American Scientific Associations and Societies participated, directing the work in favor of voluntary donations from each of the entities. In the same spirit, in 2021, the Second Ibero-American Summit of World Donors' Day was held. Community promoters of voluntary blood donation from countries in the region were identified and summoned. On June 13, the presentation was organized into 5 thematic axes, led by different groups of promoters.
An entity of such academic relevance and positioning in Latin America, such as the GCIAMT, made visible and legitimized the transcendent role of community promoters in the purpose of voluntary donation, amplifying their voices and showing that there are many initiatives with which the Blood Systems can work collaboratively based on the call of voluntary donors and the organization of blood collections.

The availability, safety, and quality of blood for transfusion in Latin American countries need to be improved. As part of this effort, national policies and strategies must be put in place so that resources already allocated to blood services are better utilized. In this context, the GCIAMT plays a fundamental role in the training of human resources, developing work standards and recommendations, disseminating scientific publications, and exchanging information on activities carried out in Latin American member countries specialized and qualified in the field.

Silvina Kuperman, MD
President GCIAMT (2019-2023)
www.gciamt.org

GCIAMT
Grupo Cooperativo Iberoamericano de Medicina Transfusional

Akanksha Bisht
National Institute of Biologicals, NOIDA,
Ministry of Health & Family Welfare,
India

First decade of implementation of Haemovigilance Programme in India

The National Institute of Biologicals (NIB), NOIDA is an APEX autonomous Institute under the administrative control of Ministry of Health & Family Welfare, Government of India engaged in Quality Control Evaluation of various biological products like vaccines, blood products, blood reagents, sera, Immuno-diagnostic kits etc. produced and imported into India.

Haemovigilance is a tool to improve the quality of the blood transfusion chain, primarily focusing on safety. The Haemovigilance Programme of India is being implemented since year 2012, with National Institute of Biologicals, NOIDA, Ministry of Health & Family Welfare, Government of India as the National Coordinating Centre. The programme tracks the Adverse Reactions associated with Blood Transfusion and Blood Donation. This system includes monitoring, reporting investigation, identification and analysis of adverse reactions related to transfusion & blood donation. The programme aims to improve the safety & quality of blood being received by the patients and promotes voluntary blood donations with the view to improve safe blood transfusions practices in our country.

The NIB is also actively involved with World health organization (WHO) for organizing workshops for strengthening of blood services and haemovigilance in SEAR countries. Further India is a member of International Haemovigilance Network (IHN) since 2014.

Awareness about the programme, its objectives and its non- punitive implications is being generated through publications in reputed journals/ magazines & Haemovigilance Newsletters and also by organizing CMEs/ Trainings/ Workshops/ Conferences on HvPI in different regions of the country. Till date total 76 CMEs/ Trainings/ Workshops/ Conferences on HvPI have been organized by NIB and about 15,023 blood centre officials, clinicians, nurses, blood centre technical staff, blood donors, motivators etc. all across the country have been trained.

The program is analyzing the reactions being submitted online by Blood Centres through indigenously developed haemovigilance software by NIB (Reporting of Adverse Transfusion Reactions is done online via Haemo-Vigil software & reporting of Adverse Blood Donor Reactions is done via Donor-Vigil software available on NIB website i.e. www.nib.gov.in). There are about 3000 plus licensed blood centers in India. Though reporting for the program is voluntary, 1210 centres are enrolled and reported about 55,000 Adverse Reaction Reports accordingly data analysis reports with recommendations for stakeholders are being published from time to time. Such information is a key to introduce required changes in the applicable policies, improve standards, system, processes and assist in the formulation of guidelines.

Haemovigilance as a whole has grown over the last decade across the world, there have been many new developments, definitions, classifications and development of preventive strategies for both recipient and donor vigilance. Haemovigilance is one of the potential quality checks in blood transfusion services and could play an essential role to prevent any breach in safety of blood transfusion practices. So, ultimately to promote and improve safe blood transfusion services in India, Haemovigilance Programme of India is utmost important and there is need to sensitize the fraternity about the Blood Safety thorough Haemovigilance.

Khadija Lahjouji
National Blood Transfusion Center and Hematology, Morocco

Management of the COVID-19 Pandemic by the CNTSH in Morocco

The National Blood Transfusion Center and Hematology of Morocco (CNTSH) is an institution attached to the Ministry of Health and responsible for implementing the national policy on blood transfusion and haemovigilance with the main missions of organizing the Kingdom's transfusion policy, scientific and epidemiological monitoring and the promotion of blood donation.

Thus, since the start of the SARS-Cov-2 coronavirus epidemic in China, the CNTSH has set up a crisis management committee and has organized several brainstorming meetings since January 2020 and several recommendations have been issued over time and were distributed to the managers of the 18 regional CRTS blood transfusion centers, as per the national and international epidemiological situation evolves. These recommendations have been updated based on updated data from national health authorities and international scientific bodies.

The recommendations focused on maintaining the Business activity of blood collection while ensuring the safety of donors, recipients and blood products as well as the supply of reagents, consumables and equipment.
Thus, the CNTSH has implemented several measures, the main ones of which are as follows:

1 The organization of blood drive campaigns in partnership with several institutions, mainly the authorities, including the Ministry of the Interior, the General Directorate of National Security, the Auxiliary Forces, the Customs Department, etc.
2 The request to the competent authorities to issue special authorizations for blood donors to visit blood centers in order to donate blood, especially during lockdown.
3 Encouraging associations working in the field of blood donation to provide assistance to blood transfusion centers including raising awareness among donors.
4 Close monitoring (daily/ Twice) of the national stock of blood products and the number of blood donations carried out each day at all CRTSs.
5 Regulation between regional centers by supplying deficit centers from other centers with a satisfactory stock.
6 The involvement of healthcare services in managing requests for blood products
7 Calls for blood donation have been launched through the media (Television, Radio, Press, etc.)
8 The possibility for blood donors to make an appointment with the CRTS to minimize the risk associated with gathering and waiting.
9 Arrangement of reception areas to ensure social distancing.
10 The implementation of protective measures at the level of blood transfusion centers through the provision to the various CRTS as per their need of PPE and protective devices.

All these measures have made it possible to maintain the activity of the regionals centers in optimal conditions of safety and quality, and to respond to all requests from both healthcare establishments: public and private.

Thus, in 2020, 296841 blood units were collected nationally, 638320 blood products have been prepared and 455805 products were delivered, which corresponds to a decrease of 10% on average compared to 2019.

Sharran Gray
Lancashire Haematology Centre

Recognition of service to transfusion science/medicine in UK honors list

What a wonderful opportunity it is to contribute an article about a career in Blood Transfusion; a passion we all share! I have been fortunate to have had a very varied career which started as a trainee biomedical scientist (BMS) in haematology and transfusion laboratory practice.

I worked in various roles as a BMS including clinical and laboratory transfusion management. My role developed as clinical lead for blood transfusion, and increasingly involved more research, innovation and direct patient care. I registered as a Clinical Scientist through Academy of Healthcare Science (AHCS) equivalence and was in the first cohort of Higher Specialist Scientist Trainees (HSST) in Haematology. I am a Fellow of the AHCS and also of the British Blood Transfusion Society. I was awarded the NHS England Chief Scientific Officer's Healthcare Science Award in 2017 for my doctoral research on Accelerated Red Cell Transfusion for Selected Patients. This research also led to the development of a red cell dosage calculator app which improves the achievement of a patient's haemoglobin target. This is now a registered medical device and available to other NHS organisations. My research interest in pulmonary complications of transfusion led me to my role with SHOT where I have been the working expert for transfusion-associated circulatory overload for several years, and contribute in this area on an international-level. I find a great deal of satisfaction in problem-solving through research and innovation that makes a difference to patients and healthcare professionals in everyday practice. I still have a list of things I would like to do and wish I had the time to match my enthusiasm!
After completing my higher specialist training and attaining Fellowship of the Royal College of Pathologists I was appointed to a consultant post at Lancashire Haematology Centre. My role is split between my haematology diagnostics clinic and a joint obstetric haematology virtual clinic/advisory service, and my role as haematology and transfusion laboratory director/laboratory clinical lead across two hospital trusts. I am also the Haematology clinical chair of the Lancashire and South Cumbria Pathology Service which is a newly forming regional pathology network in the UK.
My current role was developed to help address pressures in the medically-qualified consultant haematologist workforce. This type of role is in the early stages of wider recognition and implementation but I was pleased to be invited to work with the National School of Healthcare Science (NSHCS) to help promote the benefits of a blended workforce. These roles are intended to alleviate medical consultant recruitment difficulties and develop a multi-professional blended workforce that makes the best use of skills and knowledge across the team to meet increasing workload demands.
I have been so fortunate to have been trusted and supported by amazing colleagues and senior leaders to pursue ideas, projects, innovations and new ways of working. This is something I will never forget and have always tried to 'pay forward' to support future generations in our profession. I was honoured with an OBE in the 2021 New Year Honours for services to Blood Transfusion and Patient Care, which I accepted in acknowledgement of the NHS, our profession, our patients and the incredible colleagues I have worked with over the years.

Dr Sharran Grey receiving her OBE from Prince Charles at Windsor Castle, for services to blood transfusion and patient care.


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