

Symposium SnapSHOTS 2014.

Suzanne Hall and Heidi Doughty

Suzanne Hall is a haematology registrar with an interest in transfusion. She was awarded a bursary by SHOT to attend the annual SHOT Symposium at Salford Quays in Manchester on 9th July 2014. Heidi Doughty is a Consultant in Transfusion Medicine and a member of the SHOT steering committee.

SHOT, Serious Hazards of Transfusion, is the voluntary UK haemovigilance organization. It is affiliated to the Royal College of Pathologists but has a steering committee representing at least 20 professional healthcare bodies. SHOT also works closely with the Medicines and Healthcare products Regulatory Agency (MHRA) to meet regulatory requirements. It is a truly multi-disciplinary transfusion community who feel passionately about patient-centred care. The symposium in July provided the launch of the 2013 annual report which provides direction for future UK transfusion policy and practice.

The symposium started with Dr Kate Ryan, a haematology consultant from Manchester, interviewing her patient, Julie, who has sickle cell disease. Julie described the personal and professional impact of painful sickle crises and how the introduction of automated exchange transfusions has significantly improved her quality of life. Much of the rest of the day was spent discussing 'the human factors' with reference to errors but it was good to start by seeing a different sort of human factor. This session really put into context the contribution of blood transfusion to saving and improving lives.

Context is key. Dr Paula Bolton-Maggs, Medical Director of SHOT, introduced the 2013 SHOT report. Blood transfusion in the UK remains safe with 12.9 event reports per 10,000 blood components issued. However, there continues to be adverse incidents and most of these (77.6%) are due to human error and are therefore potentially avoidable. In several incidents, multiple errors contributed. This reflects the potentially complex nature of the transfusion process. The complexities of the process and the impact on patient care were exemplified by the presentation by Dr Jane Keidan.

Dr Jane Keidan explored the issues around the continuing sensitization of women to the D antigen despite the current era of routine antenatal anti-D prophylaxis. Potential areas for improvements were weight dependent dosing and simplification of regimes. There was also emphasis on the need to support the patients to be involved in their ante- and postnatal care. In addition, we need to provide ongoing education to colleagues. The 2013 SHOT reports incidences where false reassurance had been given by healthcare professionals and anti-D had been withheld.

Event analysis by specialty was introduced in 2012 and provides valuable guidance for targeted improvements. There continues to be a large number of instances of 'specific requirements not met' in haematology. Examples would be failure to provide irradiated blood and platelets when indicated. Risks can be reduced by appropriate use. The problems were well illustrated in the audit of platelet transfusion practice presented by Dr Chris McCauley, a haematology registrar from Belfast. Changing the transfusion process and providing access to decision making tools at the point of prescribing may reduce errors and improve prescribing. An excellent example of this was poster 11 – implementation of a mandatory weight box on the trust electronic ordering cross-match form to reduce the risk of TACO.

Process Design and Human Factors were key messages during this symposium. Guy Hirst, a retired British Airways Training Standards Captain and pioneer of Human Factors training in

the airline industry, gave the first keynote lecture. The lessons that medicine can learn from the airline industry are not the technical lessons, but ones based on applied psychology. Effective teamwork and communications skills offer a practical and cost effective way to reduce human error. In addition, the way that we perform our individual tasks is important. Guy compared the 2 'paths' for performing tasks; the conscious and slow path we use in unfamiliar circumstances where knowledge based errors are more prevalent, versus the automatic subconscious way in which we perform familiar tasks. It is when we are on 'automatic pilot' in a 'high risk situation' that we risk forgetting to adjust processes when required. These include: being interrupted during a task; any task where a deviation from the normal sequence is required; the occurrence of unanticipated events during a task, and any attempt to interweave unrelated tasks. As one delegate pointed out, he had just described the circumstances that define the life of most healthcare professionals including junior doctors.

The short video of Kathryn Schulz, an American journalist, highlighted another human factor that contributes to error. It is our innate human need to be right, and our resulting non-acceptance of being wrong which gives us an inbuilt resistance to embracing and learning from errors. In the video she also recounts a discussion with Ed Viesturs, an experienced mountaineer, who chillingly states that "a mistake is a mistake whether you pay for it or not". The message underlines the need for reporting near misses and taking them as seriously as events which actually resulted in harm.

After lunch the focus shifted from man to machine. Computers have been critical to laboratory practice for many years but are increasingly being used by the bedside. Karl Monsen, a PhD student from Edinburgh, presented his prize-winning abstract on the evaluation by medical students of a computer 'app' supporting transfusion prescribing. He underlined the difficulty not only of developing and validating such a programme but also the challenge of continual updates.

The presentation provided the perfect introduction for the second keynote lecture given by Professor Harold Thimbleby, a computer scientist with an interest in improving medical devices. He provided an unusual insight into our approach to 'user error' as he explored 'Computers as team players?'. The thrust of his argument being that while we make 'mistakes' when using computers and electronic devices that are allegedly designed to reduce error, it is the poor design of these devices that can actually contribute to the error. He calls for better design and more 'user friendly' devices that have been thoroughly tested and have been shown to improve outcomes. Computers have the potential to be 'team players' when used in the clinical arena alongside the patient but we must understand the limitations.

Patients are an important part of 'the team'. In the penultimate session, Simon Goodwin, a transfusion practitioner from Surrey and Sussex, presented experience of implementing a patient consent tool. Informed consent for patients who are often unwell and in need of urgent treatment is challenging especially when describing rare but potential hazards. However, a well-designed consent tool can help all practitioners, not just doctors, in gaining informed consent especially when combined with the process of positive identification. Such empowerment has the potential to not only reduce error but also to improve patient satisfaction.

The last session of the day was an interactive session where selected cases from the 2013 annual report were expertly presented for audience discussion. The success of SHOT relies on the participation of not just the transfusion team but also the wider healthcare community. It is the honest sharing and learning from our practice collated by SHOT that provides the potential for continued excellence in transfusion safety.