

## Haemovigilance

Farheen Karim, Natasha Ali, Salman Naseem Adil

Department of Pathology and Microbiology, The Aga Khan University Hospital, Karachi.

Corresponding Author: Salman Naseem Adil. Email: [salman.adil@aku.edu](mailto:salman.adil@aku.edu)

Haemovigilance; a relatively newer concept in transfusion medicine was pioneered in France in 1991 followed by establishment of the first haemovigilance system in Europe in France in January 1994.<sup>1,2</sup>

The word 'Haemovigilance' was derived from the Greek word 'haema' meaning blood and the Latin word 'vigilans' meaning watchful.<sup>3</sup> As the word explains itself, haemovigilance aims to improve the quality and safety of the blood transfusion chain. Haemovigilance is defined as 'a set of surveillance procedures covering the whole transfusion chain from the collection of blood and its components to the follow-up of its recipients, intended to collect and assess information on unexpected or undesirable effects resulting from the therapeutic use of labile blood products, and to prevent their occurrence and recurrence' (<http://www.ihn-org.net>).

Blood transfusion albeit being lifesaving is associated with certain risks. In order to improve transfusion practice, national haemovigilance systems were implemented in most European countries as well as outside Europe.<sup>4</sup> Data of these well-functioning haemovigilance systems have not only identified the root causes of adverse transfusion reactions but also introduced measures that have contributed to the safety of blood transfusion.<sup>5</sup> For example, the data from the UK based haemovigilance system SHOT (Serious Hazards of Transfusion) drew attention to the fact that majority of the serious transfusion reactions were a result of administrative errors resulting in wrong blood transfusion. This created awareness and the corrective actions were thus taken laying more emphasis on better patient identification and education of personnel involved in transfusion of the patient. This further improved the safety of blood transfusion in the hospital setting.<sup>3,5,6</sup> The haemovigilance data from many countries showed that transfusion-related acute lung injury (TRALI) was a significant risk of transfusion. The Swiss data revealed that in Switzerland TRALI occurred in approximately every 8,000-20,000 fresh frozen plasma (FFP) transfusions and

the main cause of TRALI was immune mediated.<sup>7</sup> This led to production of FFP from male donors only or from those women who confirmed that they have never been pregnant. The haemovigilance data from United Kingdom verified that the usage of plasma derived only from male donors significantly reduced the incidence of TRALI.

Successful implementation of haemovigilance has improved transfusion practice worldwide.<sup>8</sup> In Pakistan, no haemovigilance system has yet been developed. In order to introduce haemovigilance, the first step would be development of local haemovigilance system within the hospital blood banks and the blood establishments that are involved in the collection, testing processing, storage and distribution of human blood or blood components. This should be followed by a national haemovigilance programme which will help to improve our transfusion practices. Implementation of such a system will be of benefit not only for safety and quality of blood transfusion but also for the appropriate use of blood. This regulatory infrastructure is required to enforce standards for blood safety.

### References

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