

## Promoting safe and effective use of blood products

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Science is ever changing and so is medicine. Some certainties today may not be valid tomorrow. New research, observations and outcomes can turn widely used current practices into no longer acceptable ones. Additionally, and especially in medicine, one may find more than one right answer to the same problem. Different physicians, with different backgrounds, may choose different ways to address a clinical situation. Through medical conferences and peer reviewing, these ‘uncertainties’ can evolve into safer practices, as one’s experience can add to others’.

Blood transfusions have never been safer. Through the addition of new and powerful technologies and practices, the use of human blood is an efficient and safe therapeutic option, as long as it is correctly applied. But what can be considered the “correct use” of such a tool?

Since the 1960s it is current practice in different medical centers, particularly in the US, to have a medical committee to review the indications and usage of blood products: the Transfusion Committee (TC). This is also recommended by different institutions, including Advancing Transfusion and Cellular Therapies Worldwide (AABB - formerly American Association of Blood Banks)<sup>(1)</sup>, and the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) both in the USA. More recently, it has also become a demand of the Brazilian Ministry of Health and was included in the latest “Technical Regulations in Hemotherapy Practice”<sup>(2)</sup>.

The precise objectives and composition of the TC may vary between institutions and governmental regulating agencies. For AABB, it should be “a peer reviewed program that monitors and addresses transfusion practices for all categories of blood products”. For the Brazilian Ministry of Health, it should be “a multidisciplinary committee that monitors hemotherapy practice, including education, hemovigilance and the definition of protocols for transfusion practices”. Mintz states that “the clinical staff governing body from each hospital must decide how it wishes to assess transfusion practices”<sup>(3)</sup>.

The benefits of blood transfusions are well established. Inappropriate use, however, should be reduced to a minimum, as the inventories are permanently on the edge, the products are finite and hard to obtain, and making human blood a safe product for therapeutic use is a very expensive process<sup>(4)</sup>. It should also be remembered that adverse effects are still present and should be carefully considered when physicians prescribe blood.

A multi-specialty medical group allows teamwork, open and transparent communication and maintains clinical practice aligned with current medical knowledge. Clinical practice is complex, and certain clinical situations go beyond the individual’s knowledge and ability.

A TC should ideally operate in accordance with the institution’s general practice standards. Its president is normally nominated by the Hospital’s board of directors, and it should meet and report periodically according to the individual local needs.

Some advocate that the president should not be a representative from the blood bank, in order to avoid conflicts of interest. However, at least a blood bank physician should have a seat in the TC. Important participating specialties include anesthesiology, surgery, intensive care, nursing, among others to be defined locally.

The main task of the TC is to promote a safe and effective use of blood products. It should also assist in developing transfusion policies, obtaining compliance from prescribing physicians, facilitate collaboration between disciplines, evaluate the implementation of new techniques, support training and education of medical teams and help spreading blood banking practices.

Reviewing the use of blood products in the institution is another common major task of the group. The excessive and/or inadequate use of blood can be monitored, as well as adverse reactions. Having the committee’s support to implement guidelines in hemotherapy is of major importance to help the blood bank achieve this goal.

While some groups focus on a clinical approach of TCs, others advocate that the TC should be involved in internal technical activities of the blood bank as well.

In this issue of *Revista Brasileira de Hematologia e Hemoterapia*, Carvalho et al. bring a comprehensive and interesting study of a large number of transfusion agencies operated by, or associated to, Hemominas, a major public blood center in Brazil, operating in 178 different cities in the state of Minas Gerais<sup>(5)</sup>. These agencies’ activities were analyzed according to

the presence or not of an active TC and its influence on different internal, technical and clinical practices in different hospitals.

Results show that centers with an active TC not only have better notification and follow-up of transfusion reactions, but also better internal clinical practices, such as correct filling out of paperwork and patient transfusion data, and better blood sample identification processes.

It is interesting to note that is hard to know whether an active TC is the main determinant for a more strict implementation of guidelines and regulations, or if the institutions that are better at following guidelines happen to be the ones that have adopted more active TCs. The bottom line is that this paper brings light not only to the current situation of TCs in a major Brazilian state, but also to the technical practice of blood transfusions in a large number of institutions. As stated in the paper, these findings should serve as a basis to approach the problem.

Whether identifying, monitoring and pushing for corrections of technical deficiencies in blood banks is a task of the authorities and/or of the TCs remains a matter of debate. However, evidence from the present work shows that TCs have an important role in today's blood banking practices.

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