



Editorial

Towards better and safer blood transfusion

Duck Cho, M.D., Ph.D.

Department of Laboratory Medicine, Chonnam National University Medical School, Gwangju, Korea

Although blood transfusion can be lifesaving, it involves risks such as transfusion-transmitted infections (TTIs). In late 2003 in Korea, 4 units of human immunodeficiency virus (HIV)-infected blood were transfused to recipients during the window period. At that time, it was also disclosed that many unqualified blood products had been supplied to hospitals [1]. These serious incidents prompted enactment of the National Blood Safety Improvement Projects by the government in 2004.

In this issue of **Blood Research**, Kim *et al.* report a performance review of the 5-year project (2004–2009) to improve safety of blood supply provided by the Korea Red Cross (KRC) and other blood centers [2]. The project consists of 5 major categories: blood donor recruitment, blood testing and manufacturing, blood supply and use, enhancement of blood service expertise, and government responsibility for the national blood program. Our government has provided enormous financial support to implement this project. As a result, the number of blood collection centers has increased up to 127 nationwide, and blood-testing centers have been consolidated and upgraded. Furthermore, the Blood Information Sharing System (BISS) has been successfully established for networking between KRC and hospital blood centers; this system facilitates blood ordering and inquiry of donor eligibility. Nucleic acid amplification test (NAT) for HIV and hepatitis C virus (HCV) was started in 2005 and that for hepatitis B virus (HBV) was started in 2012.

Between February 2005 and July 2006, 80 of 3,481,972 donors were found to be positive for HIV-1, as determined

by NAT testing. Among the 80 donors, 4 were in anti-body-negative window periods [3]. However, after implementation of NAT testing, no TTIs have been reported in Korea.

Korea has made remarkable efforts to provide a safe blood supply for transfusion. Although Kim *et al.* have only briefly mentioned the major activities of the medical staff and physicians in hospitals as well as the role of the Korean Society of Blood Transfusion, continuous improvement in blood transfusion should be anticipated through cooperation among blood transfusion societies, blood centers, hospitals, and governments. Indeed, serious accidents have often prompted significant improvements in the field of transfusion medicine. However, I hope that there will be no more serious accidents in all the steps from blood donation to transfusion and that there is further progress towards better and safer blood transfusion.

REFERENCES

1. Oh DJ. The progress of South Korean blood transfusion services (2004–2006). *Asian J Transfus Sci* 2008;2:87-9.
2. Kim SY, Kim HO, Kim MJ, et al. Performance review of the National Blood Safety Improvement Project in Korea (2004–2009). *Blood Res* 2013;48:139-44.
3. Lee JS, Yoon MJ, Kang JW, et al. Characteristics of human immunodeficiency virus type 1 reactive blood donors following nucleic acid amplification test screening. *Korean J Blood Transfus* 2007;18:202-8.