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EDITORIAL

Umbilical cord blood is now considered an acceptable alternative to the use of bone marrow as a source for hematopoietic stem cells for pediatric hematopoietic stem cell transplantation, and is being investigated in adults. Major advantages of umbilical cord blood include the speed of availability compared with unrelated donor bone marrow, and tolerance of 1-2 human leukocyte antigen mismatch, which offers the opportunity to extend the donor pool. Therefore, umbilical cord blood transplantation is associated with durable engraftment and low incidence of severe graft-versus-host disease.

Cord blood transplantation has expanded the ability to meet the growing needs of their patients. Clinical data over the last decade showed promising results in cord blood transplantation using blood from related as well as unrelated donors. Basic science continues to look for the ways to expand the quality and quantity of cord blood. Cord blood banks are now established around the world, with major efforts to standardize banking to facilitate regulation, collection, processing, and distribution as a way of providing the highest-quality cord blood for patient use.

In this issue, the state of the art of umbilical cord blood transplantation was reviewed in the special article, with emphasis on practical considerations in umbilical cord blood selection, transplantation, banking, and current research directions for this hematopoietic stem cell source. In addition, the original article entitled "Comparison of three methods in umbilical cord blood collection for hematopoietic stem cell transplantation" investigated the effectiveness of three methods in cord blood collection.

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