Press Release
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Terumo Blood and Cell Technologies-sponsored panel publishes first-of-its-kind international consensus recommendations for pregnancy complications in patients with sickle cell disease

- **Multidisciplinary experts from the U.S., Europe and Turkey used iterative Delphi methodology to develop guidance for therapeutic interventions based on the unique needs of pregnant patients with sickle cell disease**
- **Peer-reviewed study in Blood Advances also identified knowledge gaps to guide future research**

Lakewood, Colorado, 19 February, 2024 - Terumo Blood and Cell Technologies (Terumo BCT), a medical technology company , announced the publication of a peer-reviewed study [1] containing new consensus recommendations from an international panel of multidisciplinary experts for sickle cell disease (SCD) management during pregnancy. The Terumo BCT-sponsored study spells out recommendations for prenatal care, including guidance for when to administer prophylactic medicines and conditions under which healthcare professionals should consider simple blood transfusions or automated red blood cell exchanges (aRBCx). Together, the 12 hematologists, physiologists, obstetricians, maternal-fetal medicine specialists, and transfusion medicine physicians used the iterative Delphi methodology to systematically obtain expert consensus that will optimize the treatment of these high-risk patients.

SCD is a challenging disease to treat on its own, with underserved patients often struggling to receive treatment to prevent or decrease the severity of excruciating pain episodes. During pregnancy, SCD increases a range of risks for both mother and fetus, while decreasing potential therapeutic options due to concerns about teratogenicity. Despite the danger, clinical data on treating this population are scarce, which inspired the authors to explore the Delphi model for the first time to develop best disease management practices gleaned from experts from the United States, United Kingdom, Turkey and France.

The panel achieved strong consensus on recommendations for monthly obstetrics/gynecology and hematology visits, and the routine use of prophylactic aspirin during the second and third trimester to prevent preeclampsia. It also clarified the situations when patients are most likely to benefit from prophylactic blood transfusions or aRBCx, a process through which sickled red blood cells are removed using apheresis and replaced with donor cells. This includes aRBCx for patients with iron overload due to multiple blood transfusions or severe acute chest syndrome [2].

"This study represents an international collaboration to advance the paradigm of care for women living with sickle cell disease," said Deva Sharma, M.D., Assistant Professor of Hematology-Oncology and Transfusion Medicine at Vanderbilt University Medical Center in the U.S. "The expert panelists for this study, in multiple different time zones and corners of the world, worked genuinely with the unified goal of accelerating improvements in the management of this understudied group of women."

The recommendations formulated by the panelists could be used as a guide for healthcare professionals treating pregnant individuals with SCD. However, they note that the recommendations may need to be adapted to the resources available in each setting or country. For example, SCD treatment in higher-income countries may mean better access to disease-modifying therapies. In addition, the panel identified questions where consensus could not be reached, highlighting knowledge gaps that could orient future research.

"Publication of the Delphi panel's recommendations marks an important next step in improving maternal health in SCD," said Koenraad Dierick, Vice President Patient Access, Terumo BCT. "Our support for this work reflects our broad commitment to patients with SCD, which extends to other research, international partnerships, and of course treatment itself. Terumo BCT technology underpins the development and deployment of cutting-edge SCD gene therapies, and our Spectra Optia system itself is increasingly used for aRBCx to treat SCD complications."

[1] Sharma D, Kozanoğlu I, Ataga KI, et al. Managing sickle cell disease and related complications in pregnancy: results of an international Delphi panel. *Blood Advances*. doi.org/10.1182/bloodadvances.2023011301
[2] Hsieh MM, Fitzhugh CD, Tisdale JF. Allogeneic hematopoietic stem cell transplantation for sickle cell disease: the time is now. *Blood*. 2011;118(5): 1197-1207. doi: 10.1182/blood-2011-01-332510.

About Terumo Blood and Cell Technologies
Terumo Blood and Cell Technologies (Terumo BCT) is a medical technology company. Our products, software and services enable customers to collect and prepare blood and cells to help treat challenging diseases and conditions. Our employees worldwide believe in the potential of blood and cells to do even more for patients than they do today. This belief inspires our innovation and strengthens our collaboration with customers. Terumo BCT's customers include blood centers, hospitals, therapeutic apheresis clinics, cell collection and processing organizations, researchers and private medical practices. Our customers are based in over 160 countries across the globe. We have 750+ granted patents, with more than 150 additionally pending. We have global headquarters in Lakewood, Colorado, along with five regional headquarters, seven manufacturing sites and six innovation and development centers across the globe. Terumo Blood and Cell Technologies is a subsidiary of Terumo Corporation (TSE: 4543), a global leader in medical technology.