

Terumo Blood and Cell Technologies Presents Data on Automated Red Blood Cell Exchange to Treat Sickle Cell Disease at the American Society of Hematology

- *Three new abstracts paint a picture of regular transfusion therapy use, including use of automated red blood cell exchange and its disease-modifying potential for more patients with SCD*
- *Data presented at the 66th American Society of Hematology Annual Meeting adds to growing body of evidence supporting broader use of blood therapy*

Lakewood, CO – December 17 2024 – Terumo Blood and Cell Technologies (Terumo BCT), a medical technology company, today announced the presentation of three abstracts demonstrating the clinical and cost benefits of using transfusion therapies such as automated red blood exchange (aRBCX) for patients with sickle cell disease (SCD). The abstracts, presented at the 66th American Society of Hematology (ASH) Annual Meeting, support other recent studies^{i,ii} indicating that aRBCx improves the quality of life and clinical outcomes of patients with SCD and could be utilized more in their treatment journeys.

The abstracts are:

- Use of Chronic Blood Transfusion Therapy and Pharmaceutical Disease-Modifying Treatments in Sickle Cell Disease: A Retrospective Cohort Analysis (2014-2021)
- Clinical and Economic Impact of Long-Term Disease Modifying Transfusions in Adults as a Prophylactic Intervention for Sickle Cell Disease Crises
- Clinical and Economic Impact of Long-Term Disease Modifying Transfusions in Paediatrics as a Prophylactic Intervention for Sickle Cell Disease Crises

Long-term regular transfusion therapy is a standard but sometimes underutilized part of regular care for patients with SCD. In countries such as the U.S. and UK, patients may have access to medication that can manage SCD complications. However, many patients are unable to take these drugs, and in some cases the drugs alone are unable to prevent the complications associated with SCD.ⁱⁱⁱ Additionally, medication adherence can be an issue, and the recent market withdrawal of a common SCD drug due to safety risks could further dampen enthusiasm for drug-based options.^{iv}

The abstracts highlight the potential to improve SCD treatment using aRBCX. The first poster presents data from U.S. insurance claims, examined in a study performed with researchers at University of Pittsburgh. It demonstrates how the majority of SCD patients in the U.S. remain under-treated with any of the available disease-modifying therapies, including approved pharmacotherapy, blood transfusion and aRBCX. Furthermore, it highlights how FDA-cleared blood-based therapies like aRBCX are utilized far less than approved pharmacotherapies.

The other two studies, performed in conjunction with three UK-based hospitals, were focused on developing a cost-effectiveness model for aRBCX in the UK. The abstracts identify long-term clinical and economic benefits of aRBCX on Terumo BCT's Spectra Optia™ Apheresis System versus manual RBCX procedures, in adults and children respectively. Based on patient-level simulation modeling, aRBCX has been shown to be cost-saving while demonstrating better clinical outcomes.

"Automated red blood cell exchange is a well-established therapeutic approach that is both FDA-cleared and recommended by NICE [the National Institute for Health and Care Excellence in the UK]. However, it is still underutilized, given the benefits that Sickle Cell Warriors and their physicians have described to us," said Koenraad Dierick at Terumo BCT. "Along with recent publications demonstrating quality-of-life improvements for patients receiving these procedures regularly¹ and new expert guidelines for the use of therapeutic exchanges for SCD patients during pregnancy,² the studies presented at ASH are helping confirm the potential benefit for broader usage of aRBCX as a regular disease-modifying treatment. The

SCD community has suffered while their needs have gone unmet for too long, and Terumo BCT is a committed partner for improving the lives of everyone who can benefit from blood therapies.”

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About Terumo Blood and Cell Technologies

Terumo Blood and Cell Technologies 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 Blood and Cell Technologies' customers include blood centers, hospitals, therapeutic apheresis clinics, cell collection and processing organizations, researchers and private medical practices. Our customers are based in over 150 countries across the globe. We have 750+ granted patents, with more than 150 additionally pending.

We have global headquarters in Lakewood, Colorado, U.S.A., 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.