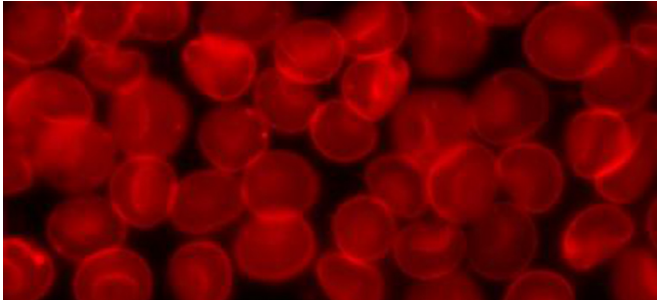


Transfusion with stored blood safe in heart surgery

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Credit: Wikimedia Commons

A large registry study led from Sweden's Karolinska Institutet shed new light on the much debated issue of transfusions with stored blood. The study, which is published in the journal *JAMA*, shows that the use of stored blood units does not influence patient outcomes after heart surgery.

In Sweden and most other western countries, blood units can be stored for as long as 6 weeks before being transfused. However, a high-profile publication in 2008, which claimed that storage for a mere 14 days or more was unsafe for [heart surgery](#), has caused confusion and anxiety at hospital clinics worldwide.

"There have literally been hundreds of studies conducted on this topic the past five or six years, none of which have been able to provide a definitive answer", says senior author Gustaf Edgren, MD, Associate Professor at the Department of Medical Epidemiology and Biostatistics.

To tackle the problem at its roots, Dr. Gustaf Edgren and his research team performed a large-scale study of almost 50,000 [patients](#) in Sweden over a 16-year period. The study was made possible by linking a number of high-quality health

registries, which allowed researchers to include all heart surgery patients in Sweden during the study period, with complete information about all blood transfusions administered together with clinical details about the patients. The cohort included patients receiving transfusions with blood that had been stored between 14 and 42 days.

"This study is by far the largest investigation focusing on the issue of blood storage in this very sensitive patient group, and we find absolutely no hint of [negative health effects](#) associated with stored blood", says lead study-author Ulrik Sartipy, a Cardiac Surgeon and Associate Professor at the Department of Molecular Medicine and Surgery.

"Thanks to these unique health registers we have been able to provide very firm reassurance that the current blood storage practices are safe," says Gustaf Edgren.

More information: 'Red Cell Concentrate Storage and Survival after Cardiac Surgery', Ulrik Sartipy, Martin J. Holzmann, Henrik Hjalgrim, Gustaf Edgren, *JAMA*, online 20 October 2015.

Provided by Karolinska Institutet

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