

Project 'Life'

A Temple of Humanitarian Services
Since - 1978



Life Blood Centre

A Centre for Excellence in Transfusion Medicine
Since - 1981



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Age Of Transfused Blood ... Is It Really Significant ?

Dear Doctor,

Greetings !!!

Hope you & your family members are doing fine in this pandemic time.

Sharing outcome of few large studies pertaining to solve the debatable issue of "Fresh v/s Old Blood".

One of the largest randomized trials at multiple sites for 05 years was carried out. Children, Critically Ill Patients, Cardiac Surgery Patients & Patients of General Hospitals were transfused Red cells stored for 10 days or less (Shorter- terms storage group) & for 21 days or more (larger term storage group) were studied.

Results

From April 2012 through October 2015 a total of 31,497 patients underwent randomization 34% of these patients, were assigned to the short-term storage group and 66% to the long-term storage group. The mean storage duration was 7.0 days in the short-term storage group and 23.6 days in the long-term storage group. There were 634 deaths (9.1%) in the short-term storage group and 1213 (8.7%) in the long-term storage group. Additional results were consistent in 03 prespecified high-risk subgroups (Patients undergoing cardiovascular surgery, those admitted to intensive care, and those with cancer).

Conclusion

- Analysis of all patients gave similar results
- Transfusion with the freshest blood did not reduce in-hospital mortality of patients.
- No evidence of significant differences in mortality for:
 - ✓ Cardiovascular Surgery Patients
 - ✓ Patients in the Intensive Care Units
 - ✓ Cancer Patients
 - ✓ Pediatric Patients
- No evidence of an association RBC storage age & in-hospital mortality
- No evidence to change current Red Blood Cell storage and Inventory Management Practices.

What is the real relationship between RBC Transfusion and Mortality?

- In short: it's complicated
 - ✓ Older patients tend to get more blood than younger
 - ✓ Sicker patients tend to get more blood than healthier
 - ✓ Bleeding patients tend to get more blood than non-bleeding patients
- Older, Sicker, Bleeding patients also tend to die more
- Many factors impact survival besides just blood transfusions

Ref:- Red-Cell Storage Duration Study (RECESS)_ NEJM.
Age of Blood Evaluation (ABLE) Study_ NEJM.

NAT & X-Ray Irradiated blood units available at Life Blood Centre.