

Supplementary Appendix

This appendix has been provided by the authors to give readers additional information about their work.

Supplement to: Koch CG, Li L, Sessler DI, et al. Duration of red-cell storage and complications after cardiac surgery. *N Engl J Med* 2008;358:1229-39.

Electronic Appendix 1.

The association between survival and the maximum age of blood was studied out to 7 years with the parametric hazard decomposition method. Stepwise model selection was used to select predictor variables that were significantly associated with survival.

The dose-response relationship between adjusted predicted survival in an intermediate-risk patient and the maximum age of transfused blood (1 day, 15 days, 30 days, and 42 days) is displayed in Figure 1. Intermediate risk was described by the following patient profile: 50 years of age, red cells transfused = 4 units; body surface area = 2.0 m²; preoperative creatinine = 1.2 mg/dL; history of heart failure; preoperative chronic obstructive pulmonary disease; peripheral vascular disease; New York Heart Association Class 4; abnormal left ventricular function; and no history of prior myocardial infarction, diabetes, renal disease, prior cardiac surgery, or severe left main trunk disease; no preoperative aortic valve stenosis or mitral regurgitation; and no use of an internal thoracic artery graft.

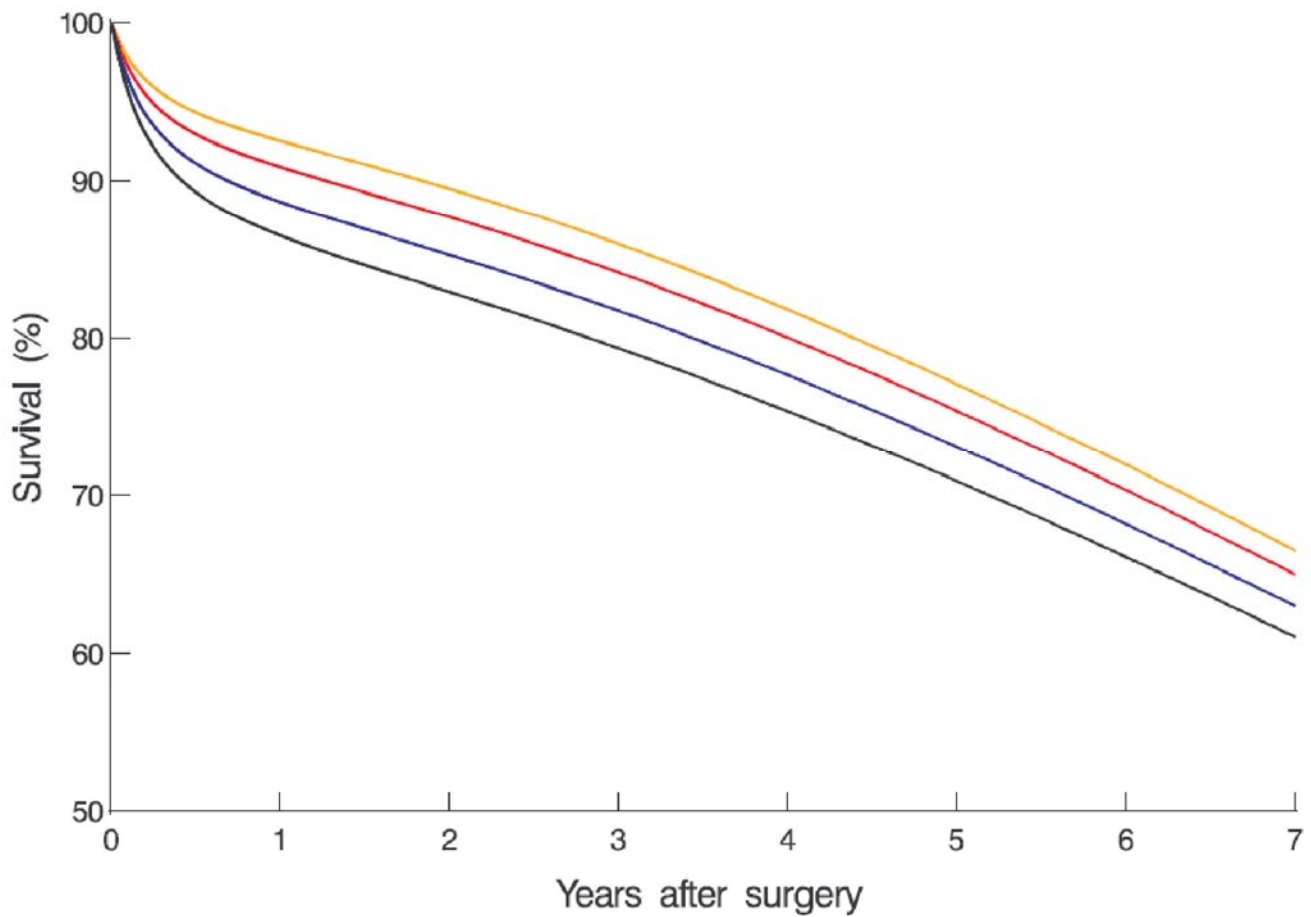


Figure 1. Predicted survival of an intermediate-risk patient transfused with red cell units of various maximum ages (1 day, 15 days, 30 days, and 42 days). This nomogram displays the “dose-response” relationship between the maximum age of transfused blood and patient survival. The curves were adjusted for other relevant confounding factors. 1 day = orange; 15 days = red; 30 days = blue, and 42 days = black.