

## **Persistent effect of red cell transfusion on health-related quality of life after cardiac surgery.**

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**BACKGROUND:** Although red blood cell transfusion has been associated with an increase in early morbid outcomes and reduced long-term survival after cardiac surgery, its relationship to functional quality of life after surgery has not been previously explored. Our objective was to investigate the relationship between perioperative red blood cell and component transfusion and functional health-related quality of life 6 to 12 months after cardiac surgery. **METHODS:** Of 12,536 patients undergoing cardiac surgical procedures between May 1995 and January 1999, 7,321 completed a self-administered Duke Activity Status Index (DASI) survey preoperatively and least one follow-up survey at nominally 6 or 12 months postoperatively. The influence of baseline DASI, preoperative risk factors, clinical status, laboratory values, operative events, and postoperative morbidities on follow-up DASI were examined with ordinal regression modeling. **RESULTS:** After adjustment for preoperative DASI, demographic, cardiac and noncardiac comorbidity, type of surgery, postoperative complications, and interval between follow-up DASI, during which patients continued to improve ( $p < 0.0001$ ), postoperative functional status after cardiac surgery was incrementally worse the more perioperative red cells ( $p < 0.0001$ ) and platelets ( $p = 0.02$ ) that had been transfused. **CONCLUSIONS:** Red blood cell and platelet transfusion have an unintended persistently negative risk-adjusted effect on health-related quality of life after cardiac surgery that extends well beyond initial hospitalization. Reductions in functional recovery paralleled increasing units of red blood cells transfused.