Rationale for Cardiology Blood Transfusion Guidelines

**Background:** A previous study performed here at the University of Michigan Medical Center showed that up to 64% of patients who were status post percutaneous coronary intervention may have received inappropriate red blood cell transfusions. (1). This analysis was based on a less strict application of the American College of Physicians (ACP) guidelines (transfusion at a hematocrit of 24%) of red blood cell transfusion. (2). Using the strict application of the ACP guidelines (transfusion at a hematocrit of 21%), the inappropriate transfusion rate could have been as high as 76%. Although blood products are generally safe, they are not without risk (e.g. infection, transfusion reaction, etc.) and they also contribute to increasing costs and lengths of stay. In addition to the increased morbidity and cost issues, a recent study has also reported an increased mortality in critically ill patients who were liberally transfused. (3). Finally, a major shortage of blood products is projected in the coming years.

**Purpose:** In an effort to reduce the number of potentially inappropriate blood transfusions at the University of Michigan Hospitals and Health Centers we are suggesting an algorithm-based approach to blood product usage. This general strategy is to be used for all cardiology patients located on 7B, 7C and 7D. The goal of using this is to facilitate appropriate decision making regarding transfusion of red blood cell products.

### References:


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**REV:** 2008; BTG

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