Single, high-dose erythropoietin given two days pre-op reduces need for transfused blood

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Anemia increases operative mortality and morbidity in non-cardiac and cardiac surgical procedures. Anemic surgical patients may require more blood transfusions, raising the risk of transfusion-related complications and increasing costs. For those reasons, optimizing patient readiness by correcting anemia prior to surgery is an important clinical goal. A simple new protocol has been proposed that helps correcting anemia using a single, high dose of recombinant human erythropoietin (HRE) administered only two days prior to surgery. The results of a randomized study will be presented by Luca Weltert, MD, Cardiac Surgery Department of the European Hospital in Rome, during the Plenary Scientific Session of the 93rd AATS Annual Meeting in Minneapolis.

HRE, a red blood cell growth factor, can offset anemia, but previous protocols required that HRE must be given many days or even weeks before surgery following a complicated dosage regimen. Practically, patients often do not have that much time for preparation, and sometimes surgery must be delayed, increasing hospital costs.

In this single-blind randomized study of 600 patients presenting for heart surgery, 300 patients received a single dose of HRE 80,000 UI as a bolus two days prior to surgery and 300 patients served as controls. The results showed that prior administration of HRE reduced transfusion requirements by about one third, from a mean of 1.12 blood units per patient to 0.39 blood units per patient (p

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