

Five Things Physicians and Patients Should Question

1

Don't proceed with elective surgery in patients with properly diagnosed and correctable anemia until the anemia has been appropriately treated.

Anemia is common, presenting in approximately one-third of patients undergoing elective surgery. There is often the misconception that anemia is harmless, when, in fact, it is independently associated with significant morbidity and mortality that can be as high as 30-40% in certain patient populations. Treatment of anemia improves patient readiness for surgery, aids in management of comorbid conditions, decreases length of stay and readmission rates, and reduces transfusion risks. Treatment modalities may include nutritional supplementations, such as iron, B12 and folate, changes in medication, management of chronic inflammatory conditions or previously undiagnosed malignancy, or other interventions based on the etiology.

2

Don't perform laboratory blood testing unless clinically indicated or necessary for diagnosis or management in order to avoid iatrogenic anemia.

Up to 90% of patients become anemic by day 3 in the intensive care unit. Although laboratory testing can aid in diagnosis, prognosis and treatment of disease, a significant number of tests are inappropriate or unnecessary. Anemia secondary to iatrogenic blood loss causes an increased length of stay and mortality. Increased phlebotomy for laboratory testing also increases the odds for transfusion and its associated risks. Unnecessary laboratory testing adds to the cost of care through laboratory test charges and also by increasing downstream costs due to unnecessary interventions, prescriptions, etc. Thus judicious use of laboratory testing is recommended, and testing should not be performed in the absence of clinical indications.

3

Don't transfuse plasma in the absence of active bleeding or significant laboratory evidence of coagulopathy.

Recent studies demonstrate that plasma is often transfused inappropriately. In the absence of active bleeding or clear evidence of coagulopathy, current literature shows no reduction in blood loss or transfusion requirements with the use of plasma, but shows increased risk of transfusion-associated adverse events such as transfusion-related acute lung injury, transfusion-associated circulatory overload and allergic reactions. These transfusion-associated adverse events lead to poorer outcomes and increased cost of care.

4

Avoid transfusion when antifibrinolytic drugs are available to minimize surgical bleeding.

Antifibrinolytic pharmacologic therapy has been shown to reduce blood loss and transfusion requirements in orthopedic and cardiovascular surgeries. Early administration of tranexamic acid, specifically within three hours, in trauma and obstetric hemorrhage significantly reduces mortality and bleeding.

5

Avoid transfusion, outside of emergencies, when alternative strategies are available as part of informed consent; make discussion of alternatives part of the informed consent process.

Informed choice/consent regarding transfusion and other effective methods should be standardized and consistently delivered. Throughout the world, there is wide variation among medical practitioners and hospitals with regard to medical knowledge about the true risks of transfusion, alternatives to transfusion, and the delivery of this information to patients. Outside of the truly emergent clinical situation, transfusion should be avoided or limited when other interventions are available. Alternative strategies include, but are not limited to pharmacologic agents, cell salvage, normovolemic hemodilution and minimally-invasive surgical techniques.