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Editorial Perspective

It was not that long ago that it was considered good medicine to keep the perioperative hematocrit of any postsurgical patient at or above 30% (or a hemoglobin 7 g/dl), ostensibly to reduce complications like stroke, myocardial, or disorientation, and moreover to improve postoperative mobilization. More recently, blood conservation efforts were prompted by concerns about propagation of communicable diseases like hepatitis and HIV. Despite advances in immunologic screening, questions about the potential adverse impact of allogeneic transfusions on postoperative recovery—especially in regards to infections—have arisen from a number of sources in cardiothoracic, intensive care, and hematology. This has led to many hospitals going to greatest lengths of avoiding any transfusions—even when patients are barely able to mobilize due to postoperative anemia—all out of concern for increased postoperative sepsis.[1,2,3]

The authors of this Systematic Review have taken on the question of if there is actually such a correlation—postoperative infection—with spine surgery, similar to what has become established for cardiac surgery.

In short, they found the state of literature wanting and not all conclusive. Major shortcomings of previous publications are predictable—such as having included patients with very low published infection risks such as simple decompression or anterior cervical fusions.

The take home message from this study is meaningful: at this time, there is no clear correlation of an increased surgical site infection risk with allogeneic transfusion. Given the power calculation the authors performed, it seems unlikely to expect that the most common phrase in research publications—that "further research is needed"—will lead to a conclusive answer, as such a study would require several thousand patients in a controlled prospective study. It seems safe to say that for now efforts at reducing blood loss, especially in elective surgeries, are certainly meritorious. In the end, if a patient appears to be potentially suffering from the well-known ill-effects of postoperative anemia, appropriately performed transfusions should not be avoided based upon a fear of increasing postoperative bacterial infection.

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References

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