

■ CORRESPONDENCE

Anesthesiology

1997; 86:258

© 1997 American Society of Anesthesiologists, Inc.

Lippincott-Raven Publishers

Perioperative Autologous Transfusion Service: A Logical Extension of Our Role in the Operating Room

To the Editor:—I enjoyed reading the editorial by Deutschman and Traber¹ and the special article by Fischer² and agree that our specialty must continue to broaden the scope of our practice beyond intraoperative anesthetic management. Deutschman and Traber comment on the increasing roles anesthesiologists are assuming in other aspects of practice, but state that such changes are "good but insufficient; and more is needed." The editorial concludes with Shapiro's argument of "value added" practice, explaining that the more the individual is capable of and willing to do, the more valuable the individual becomes. Deutschman and Traber eloquently assert that the new medical market makes it feasible for anesthesiologists to "assume responsibilities that are logical extensions of current practice." I suggest using an anesthesiologist as the Director of Autotransfusion and creating a Perioperative Autologous Transfusion Service. This serves as another route our specialty can explore to continue to broaden the scope of our capabilities and prove us an asset to hospital management. Because anesthesiologists are responsible for a significant percentage of transfused blood products, we must serve as active members of the hospital tissue and transfusion committee. We have a responsibility not only to provide guidelines for the transfusion of red blood cells but of other blood products we encounter during the course of our work.

Last year, I attended a cell salvage and autologous transfusion course directed by Dr. Paul Potter, (Commander, USN), an anesthesiologist at Oaknoll Naval Medical Center. I then acquired, for our operating rooms, two Elmd-500 autotransfusion machines from Medtronic-Electromedic, (Parker, CO), with no capital cost outlay in exchange for the purchase of the necessary disposables. Until that time, a contractor was brought to our medical center to perform the cell salvage function 30–40 times per year. With the training I received, I was able to bring "in house" the cell salvage service and almost eliminate the contract operator. With an average savings of \$400–\$500 per case, this saved our hospital \$15–20,000 in the first year of service.

Having an anesthesiologist as Director of Autotransfusion has led to improvements at our institution. An American Association of Blood Banks-mandated quality control program for salvaged blood was initiated. Written operating instructions were created to guide the cleaning and transfusion of salvaged blood. At my request, we began an evaluation of erythropoietin therapy as part of a goal to eliminate homologous transfusions for our pediatric orthopedic spine service. Many of the children we care for are mentally handicapped, and too young or small to predonate blood. For the staged anterior and posterior spine cases, after 6–8 weeks of erythropoietin therapy, the anesthesia team withdraws

an appropriate volume of blood into a blood donor bag and sends it to the blood bank to be held for the upcoming posterior stabilization. We then combine hemodilution and controlled hypotension with cell salvage. Our combined effort with the blood bank, the pediatric surgical service, pediatric hematology service, and pediatric orthopedic service has virtually eliminated homologous transfusions for major pediatric spine cases.

Some may scorn the suggestion of acquiring the autotransfusion role in the hospital. However I believe this service is a logical extension of our role in the operating room. Blood volume management, hemodilution, hemotherapy, and cell salvage are tasks to which we are uniquely suited, and well within the capabilities of the clinical anesthesiologist. Using the anesthesia care team approach at our institution, the automation of these machines allows the assigned staff anesthesiologist to operate the machine while medically directing anesthesia activities of CRNA(s) or supervising a trained anesthesia technician operating the machine. In addition, with the new technology and automation found in the latest generation of machines, it is possible, in certain cases, to perform the anesthetic and operate the autotransfusion machine simultaneously.

There are a few potential routes of reimbursement for the department that assumes the responsibility of this service. The group can arrange a contract directly with the hospital, or, as Fischer states in his article,² "can negotiate with the hospital administration to provide incentive income to the department for clinical cost savings generated" by the Perioperative Autologous Transfusion Service.

Adding this service to our armamentarium further enhances our role as the complete perioperative specialist. This expanded role for anesthesiologists is a way to bring "added value" to patient care, help in cost containment, and improve medical care to our patients.

David M. Green, M.D., Major, U.S.A.F., M.C.
Department of Surgery
Anesthesia Service/SGOSA
David Grant Medical Center
Travis AFB, California 94535
Electronic mail: docgas@aol.com

References

1. Deutschman CS, Traber KB: Evolution of anesthesiology. *ANESTHESIOLOGY* 1996; 85:1–3
2. Fischer SP: Development and effectiveness of an anesthesia pre-operative evaluation clinic in a teaching hospital. *ANESTHESIOLOGY* 1996; 85:196–206

(Accepted for publication October 8, 1996.)

The views expressed in this material are those of the author and do not reflect the official policy or position of the U.S. Government, the Department of Defense, or the Department of the Air Force.