

Anesthesiology
74:203, 1991

In Reply:—Dr. Hellyer and colleagues contend that we were not acting in accordance with National Institutes of Health (NIH) guidelines, which clearly state that analgesics should be administered as required as part of postsurgical care. In fact, we use analgesics postoperatively in all of our dogs. All protocols are approved by the Animal Care Committee of the Medical College of Wisconsin (a veterinarian is a voting member), and all protocols conform to the Guide for the Care and Use of Laboratory Animals as published by the NIH. Before and after surgery, all animals are visited daily by a veterinarian to ensure that a high level of health care is received by all animals.

Unfortunately, when methods are described, important information occasionally is omitted. Use of postoperative analgesics will be stated in all future manuscripts from this laboratory, since this is one aspect of postsurgical care that should be clearly mentioned. This is especially

true in the current climate of rather vocal antivivisectionists. I encourage all other authors to follow this advice, since the letter of Dr. Hellyer and colleagues is applicable to many other investigations as well.

DAVID C. WARLTIER, M.D., PH.D.
Professor and Vice Chairman of Anesthesiology
Department of Anesthesiology
MACC Fund Research Center
Medical College of Wisconsin
8701 West Watertown Plank Road
Milwaukee, Wisconsin 53226

(Accepted for publication October 23, 1990.)

Anesthesiology
74:203–204, 1991

A Modified Y-type Set for Efficient Blood Transfusion

To the Editor:—Rapid transfusion of red blood cells is vital in the management of any patient with massive hemorrhage. A large-bore cannula, preferably inserted into a central vein, will allow a unit of reconstituted red blood cells to be completely infused, under pressure, within several minutes. The commonly used Y-type transfusion sets greatly facilitate the dilution of red blood cells with normal saline.

The limiting factor with such devices is the time it takes to disconnect an empty red cell bag from the blood pump and transfusion set and replace it with a new unit, and then perform reconstitution and pump activation. The interruption to red cell transfusion is, at best, about 90 s in experienced hands. This observation is similar to that of another group of investigators, who found that it took an average of 65.71 s for anesthesiologists to change blood bags in a pressurized pump as fast as possible.¹ The time did not include red cell reconstitution. The delay is even longer if an inexperienced person is asked to change the blood bags when the practitioner is engaged in other resuscitative maneuvers (*e.g.*, vascular cannulation).

We herein propose a modification of the existing Y-type set to virtually eliminate the described delay (fig. 1). When one unit of blood is being infused under pressure, another unit of red blood cells is being reconstituted, inserted into a pump, and pressurized. As soon as one bag of red cells is emptied, the infusion of the contents of the other pressurized bag is begun by closing and opening the appropriate clamps. The interruption to transfusion is only a couple of seconds. The blood filter should have at least twice the filtering capacity to prevent early clogging, and the tubing should be widened to decrease flow resistance.

Currently, this transfusion technique can be improvised with a pair of standard Y-type sets piggy-bagged to one another with a 14-G needle or a Y-connector. This technique does not appear to be widely used or known. It has the disadvantage of having an excessive number of tubings in a situation in which overcrowding of tubings may already be a problem. We believe that our proposed transfusion set is less cumbersome and more elegant and would be preferred by most practitioners.

ANTHONY M.-H. HO, M.S., P.E.,
M.D., F.R.C.P.(C.)
Assistant Clinical Professor of Anaesthesia

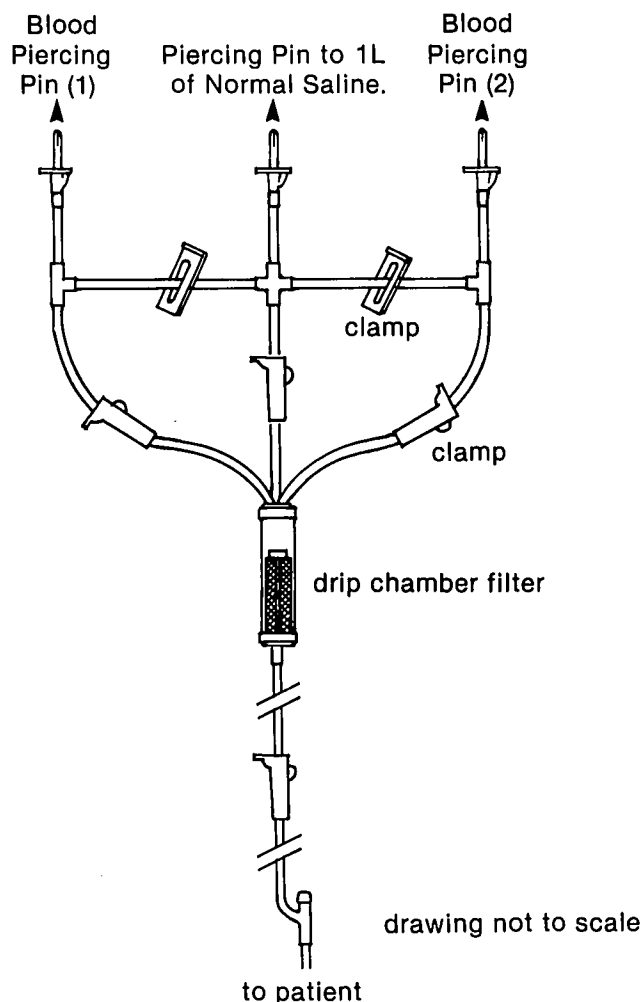


FIG. 1. A modified Y-type transfusion set.

*McMaster University School of Medicine
Staff Anaesthetist, Hamilton Civic Hospitals*

*Hamilton, Ontario
Canada L8L 2X2*

LEEANNE H. CONTARDI, R.N.

*Critical Care Nurse
Hamilton Civic Hospitals
Hamilton General Division
237 Barton Street East*

REFERENCE

1. Landow L, Shahnarian A: Efficiency of large bore intravenous fluid administration sets designed for rapid volume resuscitation. *Crit Care Med* 18:540-543, 1990

(Accepted for publication October 23, 1990.)

ANNOUNCEMENT

The American Board of Anesthesiology (ABA) will administer its fourth written examination in **Critical Care Medicine** at the Westin Hotel-O'Hare in Rosemont, Illinois on Friday, September 27, 1991. Diplomates of the ABA and other ABMS Member Boards who apply and are judged to be qualified by virtue of their additional training or experience in Critical Care Medicine will be accepted for examination. An application may be requested by writing to the Secretary, American Board of Anesthesiology, 100 Constitution Plaza, Hartford, Connecticut 06103-1721. The deadline for receipt of completed applications in the Board office is April 30, 1991.

ANNOUNCEMENT

ASA Award for Excellence in Research

The annual Award for Excellence in Research recognizes an individual for outstanding achievement in research that has or is likely to have an important impact on the practice of anesthesiology. The individual's work must represent a body of original, mature, and sustained contributions to the advancement of the science of anesthesiology. The nominee need not be a physician or an anesthesiologist or a member of the American Society of Anesthesiologists but must be currently engaged in research related to anesthesiology. In 1990 the Award was presented to John D. Michenfelder, M.D. The deadline for nominations for the 1991 Award for Excellence in Research is March 31, 1991. Guidelines for nomination are available from the ASA headquarters, 515 Busse Highway, Park Ridge, Illinois 60068.