

**BLOOD CONSERVATION AND CARDIAC SURGERY WITH THE NOVEL USE OF THE HEMOBAG® DEVICE IN TWO JEHOVAH'S WITNESS PATIENTS
Englewood Hospital Medical Center, Englewood NJ. USA**

The Hemobag® Blood Salvage Device has been successfully incorporated into the multi-modality approach to blood conservation seen at one of the top blood conservation cardiac programs in the world at Englewood Hospital and Medical Center, New Jersey. Recently the technique of hemoconcentrating the residual blood from the extracorporeal circuit with use of the Hemobag system was successfully performed on two consecutive patients who are of the Jehovah's Witness faith. This technique had only been described for use in non-Jehovah's Witness patients undergoing cardiopulmonary bypass. Now the techniques can be incorporated into this patient population successfully without interrupting the continuity of the blood with the patient. By using this technique, autologous whole blood with all of its coagulation components is preserved for re-infusion back to the patient as compared to the alternative traditional red cell salvage devices (which retrieves washed RBC's, yet discards viable plasma proteins and other cellular content essential for optimal hemostasis) that many institutions perform at the end of the case.

Technique:

IV tubing with a standard in-line blood filter is connected from the infusion port at the bottom of the Hemobag® to the patient sterilely from the surgical field before filling the Hemobag with the residual contents of the extracorporeal circuit. This provides a continuous uninterrupted fluid pathway to the patient during the hemoconcentrating process. Up to as much as 2 liters of autologous whole blood can be ultrafiltrated down and concentrated into an approximate end-volume of 750mls or more of the patients own whole blood with all of the clotting factors and plasma proteins still preserved.

David Moskowitz MD Chief of Cardiothoracic Anesthesia reports:

"We are impressed with this technology of autologous whole blood conservation for our cardiac surgery patients, and the fact that we can now incorporate its use with our Jehovah's Witness patients at Englewood Hospital and Medical Center is an added advantage. The Hemobag® process is done in approximately 10 minutes where it took over 4 hours to accomplish the same goals with unfiltered autologous whole blood from the extracorporeal circuit and diuretics. There is no hemodynamic instability encountered during the process, and no need to replace the potassium lost through diuresis post operatively. The hemoconcentrating occurs separately from the extracorporeal circuit. Therefore, the surgeons can continue with the surgery while the extracorporeal circuit remains primed and ready for emergent reinstatement of cardiopulmonary bypass if necessary.

I see this technology as another great tool in improving our blood conservation techniques perioperatively. Again, with this technique, there is no discarding of any precious and vital autologous whole blood components of our patients when they need it the most - the first few hours after surgery".

For further information on the Hemobag® technology visit www.mybloodfirst.com or contact:

David Moskowitz, MD
Director of Cardiothoracic Anesthesia
Department of Anesthesiology
Englewood Hospital and Medical Center

david.moskowitz@ehmc.com