

CELL SALVAGE IN JEHOVAH'S WITNESS PATIENTS

AREA of APPLICATION

Jehovah's Witnesses (JW) regard blood as sacred. On the basis of this deeply held core value, they decline treatment with allogeneic (donor) blood (red cells, white cells, platelets, and plasma).

With regard to autologous transfusion JW patients make a personal decision whether or not to accept such. This includes all forms of perioperative/intraoperative blood salvage (cell salvage), haemodilution, and postoperative blood salvage. While machines, systems, and arrangements vary, each patient will decide how his/her own blood will be handled in the course of a surgical procedure, medical test, or current therapy. Predeposit (PAD) is not acceptable to Jehovah's Witnesses.

Among those prepared to accept autologous procedures, some may specifically request that the system be set up to allow for continuous connectivity. In such cases, the details outlined below should prove helpful. If no such specific request is received, then the equipment/machinery may be used in the usual way.

STAFF

The patient's surgical team and all staff involved in the cell salvage processing

PROCEDURE:

Setting up a continuous circuit

Although there will be technical differences between devices, the same general principles apply.

1. Set up the machine for collection and processing with standard disposables (in bowl based machines consider using a low volume bowl to reduce blood stasis).
2. Prime the circuit with saline ensuring that saline enters the reinfusion bag (remember to account for this volume when recording the final reinfusion volume).

3. Attach an appropriate blood administration set to the reinfusion bag. Prime the administration set and connect to the patient via a cannula for reinfusion. Once established, the connection between the patient and the reinfusion bag must not be broken. (Figure 1).
4. Whilst surgery is ongoing, administer the saline at the slowest rate possible to maintain patency of the cannula until processed blood is available.

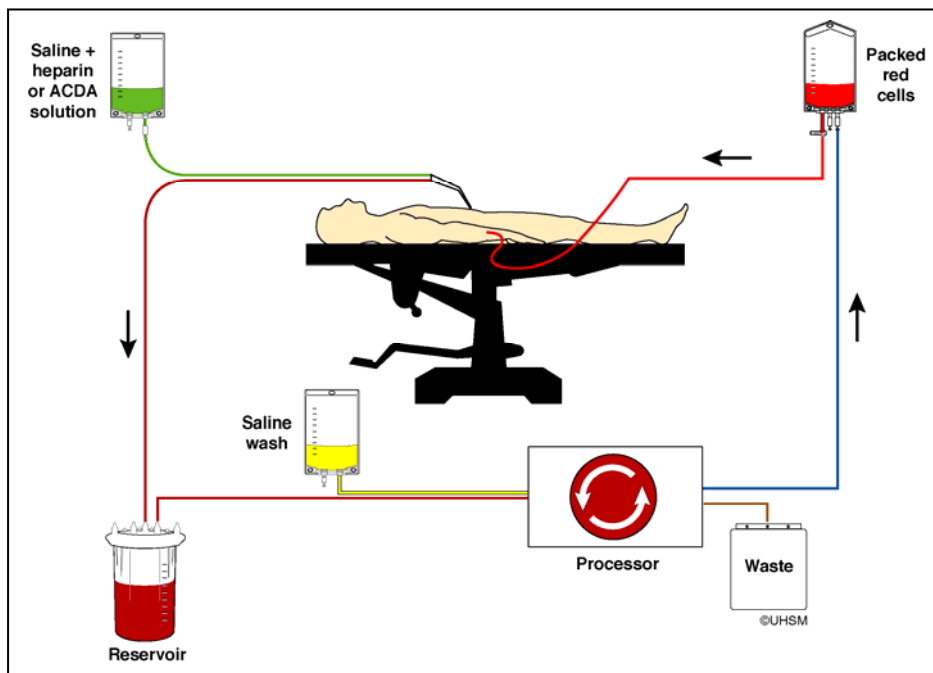


Figure 1. Representation of a continuous circuit

Special requirements

In some cases a leucocyte depletion filter may be needed for reinfusion of the salvaged blood. A standard giving set should be set up with a 3-way tap in line before blood collection begins. The giving set should be primed with saline to complete the circuit. When a volume of blood is ready to be reinfused, the leucocyte depletion filter can be spiked into the second reinfusion port on the reinfusion bag and primed. This is then attached to the 3-way tap, without breaking the circuit. Likewise, because the filters have a maximum throughput of 450mls, a new filter can be added if necessary by replacing the original giving set while leaving the original filter connected. (Figure 2).

The filter should not be flushed with saline after filtration of the salvaged blood

When blood loss is rapid, the flow rate through the filter may not be sufficient to transfuse large volumes of blood quickly. Using a filter in each port will double the flow rate. In a worst case scenario the leucocyte depletion filter may need to be

isolated from the circuit and replaced with a standard giving set. This must be done without breaking the circuit in order to maintain continuity. During management of life threatening haemorrhage in a JW, if the reinfusion rate of salvaged blood is too slow, even when using two leucodepletion filters, it may be necessary to make a clinical decision to replace the leucodepletion filter with a normal giving set, so that blood can be transfused rapidly to prevent exsanguination.

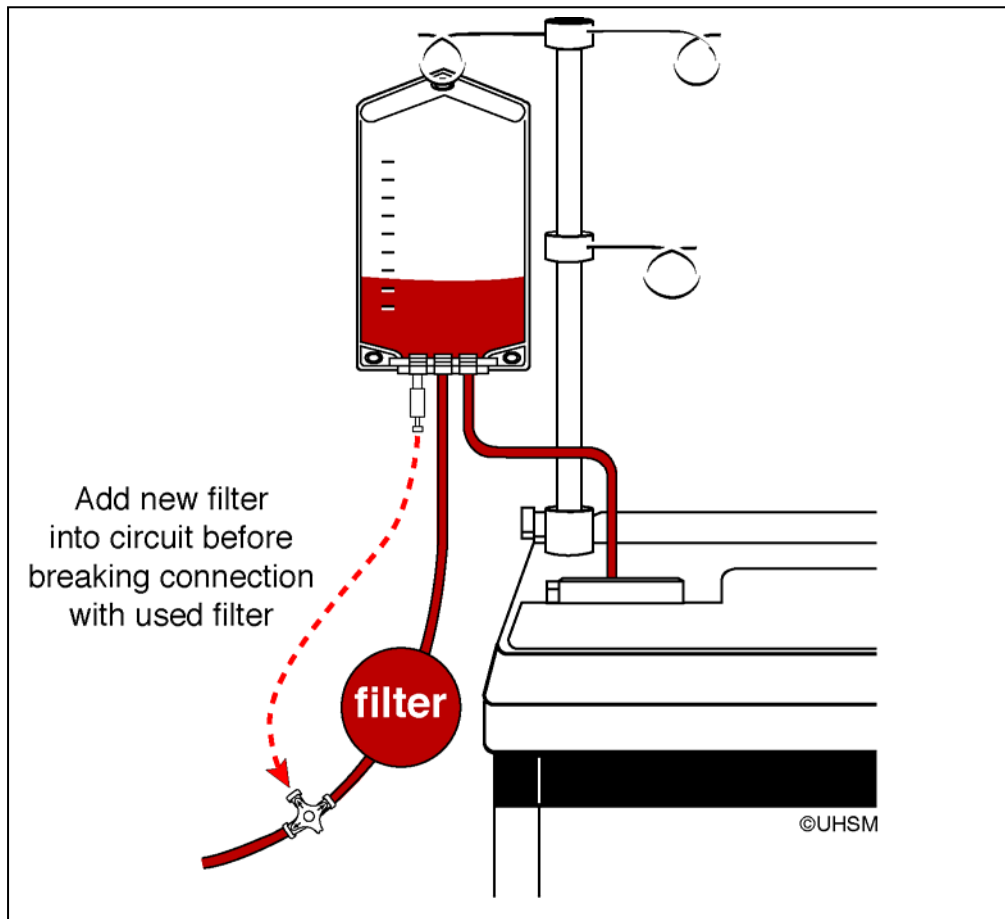


Figure 2. Replacing a filter without breaking continuity

This fact sheet has been verified by representatives of the Jehovah's Witness community.