

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). This is usually documented on an Advance Medical Decision that they carry on their person.

JW patients make a personal decision on whether or not to accept the various blood conservation measures available. These include intraoperative and postoperative cell salvage. Ideally, this should be discussed and recorded on a specific document, detailing exactly what is and is not acceptable to the patient.

JW patients who accept cell salvage may specifically request that the system be set up to allow for continuous connectivity. In these cases, the details outlined below should prove helpful. Informed consent should be sought as for all patients.

STAFF

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

PROCEDURE:

Setting up continuous connectivity

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 and the collection reservoir (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 with saline 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.

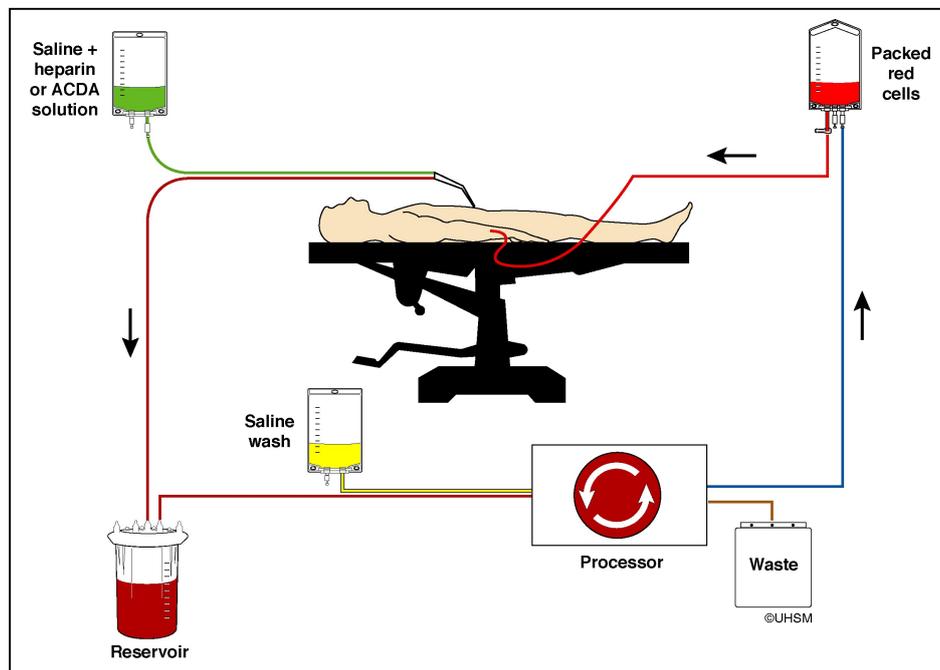


Figure 1. Representation of a continuous circuit

Special requirements

In some cases a leucocyte depletion (LD) 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 LD 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 continuous connectivity of 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 LD 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. During management of life threatening haemorrhage in a JW patient, if the reinfusion rate of salvaged blood is too slow, even when using two LD filters, it may be necessary to make a clinical decision to remove the LD filter from the circuit and replace with a standard blood administration set so that blood can be transfused rapidly to prevent exsanguination. This must be done without breaking continuous connectivity of the the circuit.

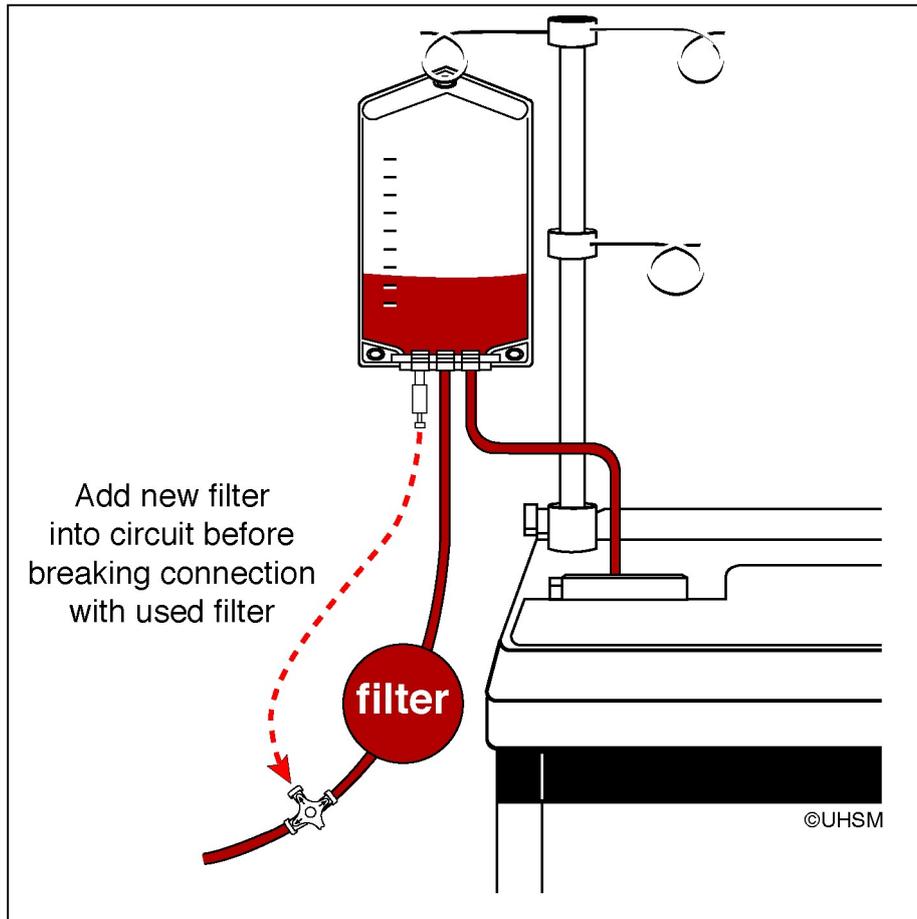


Figure 2. Replacing a filter without breaking continuity

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

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