

SWAB WASHING

AREA of APPLICATION

The efficiency of red cell recovery by cell salvage is very much dependent on the ability to recover the blood lost in a useable form. During surgery, blood loss can be removed from the operative site by a combination of suction and swabs. Blood loss to swabs during surgery has been estimated at between 30%¹ and 50%² of the total surgical blood loss. By washing swabs, the blood that is normally discarded can be collected and the overall efficiency of red cell recovery improved.³

STAFF

Theatre staff

PROCEDURE:

1. Set up a sterile bowl with 1000ml sterile IV grade 0.9% saline*.
2. Soak blood soiled swabs† for a few minutes in the saline to extract red cells. Gently compress the swabs to express any residual solution before discarding.
3. At the end of the procedure# aspirate the swab wash solution into the cell salvage reservoir using the suction line. The swab wash should not be left for more than 6 hours without processing.

Notes

If blood loss is to be calculated by weight of blood in the swabs, the swabs will need to be weighed aseptically in the sterile field prior to washing. This can be achieved by placing digital scales within a sterile transparent plastic bag.

* Some centres use anticoagulant in the swab wash e.g. 10,000 IU heparin per litre saline.

† Avoid washing swabs contaminated with betadine or other substances contraindicated in cell salvage.

In a long procedure consider evacuating the swab wash every two hours to avoid stagnation. In cases with high blood loss, consider retrieving the blood in the swab wash earlier.

Caution: For the protection of the operator, swab washing may not be appropriate in orthopaedic procedures where sharp bone shards may be present in the swabs.

REFERENCES:

1. Takaori M: Perioperative autotransfusion: haemodilution and red cell salvaging. *Can J Anaesth.* 1991; **38**:604-7
2. Ronai AK, Glass JJ, Shapiro AS: Improving autologous blood harvest: recovery of red cells from sponges and suction. *Anaesth Intensive Care* 1987; **15**:421-4.
3. Haynes SL, Bennett JR, Torella F, McCollum CN: Does washing swabs increase the efficiency of red cell recovery by cell salvage in aortic surgery? *Vox Sanguinis* 2005; **88**: 244–248.