A randomised controlled trial and economic evaluation of intraoperative cell salvage during caesarean section in women at risk of haemorrhage: the SALVO (cell SALVage in Obstetrics) trial

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Plain English summary

The SALVO (cell SALVage in Obstetrics) trial

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Plain English summary

Mothers delivering by caesarean section bleed heavily at times. In this situation, unless they get a donor blood transfusion, their life is put at risk. Donor blood for transfusion is a limited resource and, despite many advances, people who receive donor blood can sometimes experience adverse reactions. Blood transfusions should be given only when absolutely necessary and alternatives should be used wherever available.

Nowadays, it is possible to use cell salvage. This is a process by which the blood that a patient loses at surgery is collected by a machine, cleaned and returned to them. In women who have caesarean sections, this might avoid the need for donor blood, reduce the risk of complications and potentially cut costs. We conducted this study to evaluate the effects of routine use of cell salvage in caesarean section compared with standard care when this is not routinely done.

This study included more than 3000 mothers giving birth by caesarean section. Half of these were randomly selected to receive cell salvage, meaning that the cell salvage was set up to collect blood lost. Cell salvage was found to be safe. It slightly reduced the use of blood transfusions. For every 100 mothers given cell salvage, one avoided donor blood transfusion. If the blood groups of the mother and the baby were mismatched, mothers with a negative blood group needed additional treatment to avoid complications in future pregnancies. This can be easily monitored and provided as part of routine care. Based on the results of this study, cell salvage is unlikely to be considered cost-effective.
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