

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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Declared competing interests of authors: none

Published January 2018

DOI: 10.3310/hta22020

Plain English summary

The SALVO (cell SALVage in Obstetrics) trial

Health Technology Assessment 2018; Vol. 22: No. 2

DOI: 10.3310/hta22020

NIHR Journals Library www.journalslibrary.nihr.ac.uk

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.

ISSN 1366-5278 (Print)

ISSN 2046-4924 (Online)

Impact factor: 4.236

Health Technology Assessment is indexed in MEDLINE, CINAHL, EMBASE, The Cochrane Library and the Clarivate Analytics Science Citation Index.

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This report

The research reported in this issue of the journal was funded by the HTA programme as project number 10/57/32. The contractual start date was in October 2012. The draft report began editorial review in December 2016 and was accepted for publication in March 2017. The authors have been wholly responsible for all data collection, analysis and interpretation, and for writing up their work. The HTA editors and publisher have tried to ensure the accuracy of the authors' report and would like to thank the reviewers for their constructive comments on the draft document. However, they do not accept liability for damages or losses arising from material published in this report.

This report presents independent research funded by the National Institute for Health Research (NIHR). The views and opinions expressed by authors in this publication are those of the authors and do not necessarily reflect those of the NHS, the NIHR, NETSCC, the HTA programme or the Department of Health. If there are verbatim quotations included in this publication the views and opinions expressed by the interviewees are those of the interviewees and do not necessarily reflect those of the authors, those of the NHS, the NIHR, NETSCC, the HTA programme or the Department of Health.

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