

UPDATES FROM UKCSAG

WINTER 2023

UK Cell Salvage Action Group

The UK Cell Salvage Action Group (UKCSAG) was established in 2006 to help support the wider implementation of cell salvage (CS) as an alternative to donor blood, and to facilitate a UK approach to its use. The group is made up of leaders in cell salvage from across the UK and promotes the collaboration and co-ordination of expert skills and knowledge to help sustain the appropriate and effective use of cell salvage.

Resources produced by the UKCSAG are accessible via the [UK Cell Salvage Action Group webpage \(transfusionguidelines.org\)](https://www.transfusionguidelines.org)

There is ongoing work to update the factsheets on this website so look out for the most recent versions in 2024.

Cell Salvage and SHOT

A reminder that any adverse events or reactions associated with cell salvage (autologous) transfusion methods, including intraoperative and postoperative cell salvage (washed or unwashed) should be reported to SHOT via local leads.



SHOT 2022 report summary for CS can be read [here](#), incidents relating to CS are from page 206.

Headlines from this report:



Key SHOT messages

- Cell salvage related incidents continue to be under-reported
- Preventable errors accounted for 10/16 adverse events
- Of the adverse reactions, hypotensive reactions were seen in 3/4 cases



Recommendations

- Where cell salvage has been planned, teams should ensure the availability of trained staff and adequate resources for the procedure. Review current training needs for all staff involved in the process and address any deskilling by update training

Action: Cell salvage leads, theatre leads, anaesthetic and surgical specialty leads

- Review suitability of cell salvage documentation (paper or electronic) and its appropriate use. Ensure the record of cell salvage is accessible and complete, particularly in relation to communicating pertinent details at handover

Action: Cell salvage leads, theatre teams, hospital transfusion teams

- Establish clear responsibilities and lines of reporting for cell salvage incidents. Review pathways and structure for governance and communicate these processes to all stakeholders

Action: Cell salvage leads, theatre leads, HTC, clinical governance leads

Anti-D and Cell Salvage

The latest SHOT aide-memoir for Anti-D published in August 2023 is available [here](#). Please note that it is being reviewed to verify the evidence base for their recommendation of blood test in 72 hours on request of UKCSAG.

Of note to Cell Salvage users, an increased dose of 1500 IU of Anti-D immunoglobulin is recommended for (Rh) D-negative mothers who have received cell salvaged blood.

Learning from FAQs (frequently asked questions)

We are happy to receive queries related to Cell Salvage and hope to replay some common themes here to enable others to learn from the responses provided by the UKCSAG panel.

Question 1

Are non-registered band 2 HCAs allowed to process cell salvage in operations with high blood loss?

Response

There are no published UK recommendations on this. In the last UKCSAG survey of ICS practice (report pending publication) 2 respondents (out of a total of 92) reported that HCA band 2 staff performed ICS machine operation. It should be for your local governance structure to risk assess and determine if it is safe and appropriate for this staff group to perform this function. Anyone undertaking any role in ICS should be appropriately trained and competency assessed.

Question 2

A patient with von Willebrand's (clotting disorder) is having a revision knee and use of cell salvage has been requested. Are there any contraindications?

Response

There is no contraindication, all platelets and clotting factors are removed in the washing process. If there is a large volume processed/transfused, then recommend seeking haematology advice regarding replacement of clotting factors in this patient.

Question 3

RE: use of cell salvage (CS) in malignancy. Despite the guidance there is still a general reluctance or inability (i.e., lack of equipment/training) to make use of it.

Response

There is plenty of evidence that allogenic transfusions have significant risks in patients with cancer. Surgery and manipulation of the tumour itself leads to an increase in peripheral blood concentrations of malignant cells. There are numerous publications recommending the use of ICS with LDF filter in cancer surgery. LDF filters are believed to remove 99.8% of malignancy cells. There is increasing evidence that ICS is associated with improved outcomes in surgery for gynaecological cancers such as cervical cancer. However, most are retrospective or observational studies rather than RCTs. Below are some references.

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- NICE: Intraoperative red blood cell salvage during radical prostatectomy or radical cystectomy. *Interventional procedures guidance [IPG258]* Published: 26 April 2008 <https://www.nice.org.uk/guidance/ipg258>

The information contained in this newsletter has been sourced from members of the UK Cell Salvage Action Group (UKCSAG) and is generally agreed to be good practice.

The UKCSAG does not accept any legal responsibility for errors or omission.