

INTRODUCTION

There are many advantages to the use of cell salvage that have been widely described in the literature and these are particularly applicable to the obstetric population¹. The implementation of cell salvage routinely involves the training of staff in the use of the cell salvage machine. For multiple reasons only a limited number of staff in our unit are able to run the cell salvage machine and the use is often restricted to the elective theatre. The purpose of this review was to evaluate the use of cell salvage in our department in the last year to show the positive impact it can have on our patient group

METHODS

Caldicott Guardian approval was sought and obtained. A record of patients who had cell salvage used during their caesarean birth was available from January 2022 to January 2023. The electronic record of each of these patients was then reviewed.

From their record the following was documented:

- Estimated blood loss
- Volume of autologous transfusion
- Body Mass Index
- Pre-operative haemoglobin (g/L)
- Post operative haemoglobin (g/L) – within 72 hours of delivery
- Indication for use of cell salvage
- Category of caesarean birth
- Evidence of blood transfusion prior to discharge home

RESULTS

Cell salvage was used 36 times between January 2022 and January 2023

	MEAN	RANGE
ESTIMATED BLOOD LOSS (ml)	748	350-1800
AUTOLOGOUS TRANSFUSION (ml)	272	120-570
BODY MASS INDEX	29.8	19-53
PRE-OPERATIVE HAEMOGLOBIN (g/L)	111	85-135
POST-OPERATIVE HAEMOGLOBIN (g/L)	102	78-128

A total volume of 9819ml of blood was transfused back to our patients. 80% of the cases were category 4 caesarean births, 8% were category 3 and 12% were category 2 caesarean births. All cases were within daytime hours and on week days.

Cell salvage was used in cases where the multidisciplinary team felt there was anticipated additional risk of haemorrhage or where the patient would have an added benefit from autologous blood transfusion.

23 of the cases were placenta praevia. Other indications included diagnoses of autoimmune thrombocytopenia, dilated cardiomyopathy, severe vitamin B12 deficiency and significant uterine fibroids. Only 5 (13.8%) of these cases required a blood transfusion prior to discharge.

Our review has highlighted the positive impact that cell salvage has had on this group of patients in our unit. It would be interesting to compare this cohort with a similar cohort of mothers who deliver out of hours despite similar diagnosis and identify whether there is a difference in post operative haemoglobin and the need for blood transfusion prior to discharge in the group who do not have the option of cell salvage.

We hope to show our staff that training to use the cell salvage is a useful skill and it would be beneficial to have the ability to offer this to all our patients not just those who present electively.

REFERENCES

1. C Carroll, F Young (2021) Intraoperative Cell Salvage, British Journal of Anaesthesia, Volume 21 (Issue 3), P95-101