

Forceps Deliveries within Dumfries and Galloway Royal Infirmary – Postpartum Haemorrhage and Perineal Tear

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Introduction

The Royal College of Obstetricians and Gynaecologists (RCOG) estimate that 10-15% of births within the UK are assisted vaginal births (encompassing forceps and ventouse deliveries)¹. Instrumental deliveries have proven to be highly effective in allowing for the safe and rapid delivery of a baby when concerns are raised in labour and strict criteria are met. However, instrumental deliveries are not without risk and the RCOG advise that they are associated with higher levels of bleeding and vaginal tears.

Audit Objectives

1. Identify the number of forceps deliveries occurring within DGRI, location of these deliveries and consultant presence at the time of delivery.
2. Identify the indication documented for forceps delivery.
3. Evaluate whether location of delivery or consultant presence was linked with differences in blood loss at the time of delivery.
4. Evaluate whether location of delivery or consultant presence was associated with differences in perineal tear rates during delivery.

Methodology

In this retrospective audit, we identified all patients who had a forceps delivery between 01/09/2021 and 31/08/2022 (N = 75) at DGRI. Data was taken from clinical notes on BadgerNet and included: reason for forceps delivery, location of forceps delivery, whether a consultant was present for delivery, maternal blood loss during delivery and perineal tear rates.

Results

Indication for Forceps Delivery as Documented on BadgerNet

Delayed 2 nd Stage 44%	Foetal Distress 39%	Maternal Distress 7%	Failed Ventouse 4%	Malposition 1%	Medical Reasons 1%
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Perineal Tears During Delivery (Any Degree)

Location of Delivery	Percentage of Patients with Tear	Number of Patients with Tear
Birthing Suite	64.10%	25/39
Theatre	36.11%	13/36

Consultant Present	Percentage of Patients with Tear	Number of Patients with Tear
Yes	32.35%	11/34
No	34.15%	14/41

Blood Loss During Delivery

Consultant Present	Average Blood Loss (ml)
Yes	701.82
No	774.10

Location of Delivery	Average Blood Loss (ml)
Birthing Suite	739.15
Theatre	743.69

When further sub-analysing severity of tears, 7 patients were identified who experienced a 3rd degree tear and no patients were identified with a 4th degree within the time frame of our data collection. Of these 7 patients, only 1 patient had a consultant present during delivery (14.29%).

Conclusion

This audit has identified that patients who receive a forceps delivery on the birthing suite are more likely to suffer a perineal tear compared to those who deliver in theatre. There was no difference in total blood loss between these different delivery locations. We also analysed whether consultant presence during delivery was associated with maternal outcomes and whilst there was a minor reduction in total blood loss if a consultant was present, there was no significant difference in total perineal tear rates. However, it appears that consultant presence was associated with a reduction in severe (3rd/4th degree) tears.

Discussion

This audit has some weaknesses that should be noted when reviewing the results. Whilst we have identified some possible correlations with maternal outcomes, not all variables have been analysed and it is likely that other factors have impacted outcomes. Some of these variables include, but are not limited to, type of forceps, foetal size and time of day of delivery. This audit hopes to draw attention to some of the risks associated with forceps delivery and hopefully open up to further research and audits to look at how we can improve instrumental deliveries within DGRI.

Bibliography

1. RCOG. (n.d.). Assisted vaginal birth (ventouse or forceps). [online] Available at: <https://www.rcog.org.uk/for-the-public/browse-all-patient-information-leaflets/assisted-vaginal-birth-ventouse-or-forceps/>.