

An Audit of Instrumental Vaginal Delivery Rates at the Lyell McEwin Hospital

Szewczyk, H¹ & Walsh, K¹

1. Department of Obstetrics and Gynaecology, Lyell McEwin Hospital, South Australia

Background: Literature shows that globally there has been a trend away from forceps towards ventouse as choice of instrument for assisted vaginal deliveries¹. Forceps are less likely to fail to achieve vaginal birth when compared to ventouse and the increased use of ventouse may contribute to higher rates of use of sequential instruments.² In some countries the reduction in forceps use is associated with an overall decrease in instrumental deliveries and an increase in second-stage Caesarean sections.^{3, 4, 5} This trend seems to arise from the reported increased risk of obstetric anal sphincter injury (OASI) with the use of forceps². There are concerns that the art of forceps delivery is being lost. This audit reviewed the rate of instrumental vaginal deliveries at the Lyell McEwin Hospital and associated OASI to investigate how we compare to international practice.

Methods: Hospital data was used to audit rates of instrumental deliveries over a twelve-month period from March 2020 to February 2021. We also looked at rates of second-stage Caesarean section, episiotomy, OASI, indication for instrumental delivery and neonatal APGAR scores as well as demographics including parity, gestation and neonatal weight.

Discussion: At the Lyell McEwin Hospital there is a preference for forceps instrumental deliveries. Although this contributes to maintenance of essential skills and a low second-stage Caesarean rate, the increased rate of OASI cannot be ignored. This needs to be considered when choosing the method of delivery and counselling patients.

	Number	Percentage of all births
Total births	3,673	
Ventouse	156	4.3%
Forceps	241	6.6%
Second-stage Caesarean	69	1.9%

Results: During the audited timeframe 60.7% of instrumental vaginal deliveries were performed with forceps, 39.3% with ventouse. 13 forceps followed a failed ventouse and 1 ventouse was performed after failed forceps. The majority of patients undergoing instrumental delivery

Episiotomy rates	
Ventouse (primiparous)	93.0%
Ventouse (multiparous)	65.9%
Forceps (primiparous)	97.3%
Forceps (multiparous)	91.4%

OASI	Total	Ventouse	Forceps
3A	10	1	9
3B	10	4	6
3C	9	3	6
4	3	0	3

had an episiotomy. OASI rates were 5.1% with ventouse and 10% with forceps. Fourth degree tears occurred in 1.3% of forceps deliveries.

References: 1 – Rather H et al. 2016, 'The art of performing safe forceps delivery: a skill to revitalize', *EJOG*, vol. 199, pp. 49-54. 2 – O'Mahony F & Menon V 2010, 'Choice of instrument for assisted vaginal delivery', *The Cochrane Library*. 3 – Unterscheider J et al. 2011, 'Rising rates of caesarean deliveries at full cervical dilatation: a concerning trend', *EJOG*, vol. 157, pp. 141-144. 4 – Vousden N et al. 2014, 'Caesarean Section at full dilatation: incidence, impact and current management', *TOG*, vol. 16, pp. 199-205. 5 – Fong A et al. 2014, 'Temporal trends and morbidities of vacuum, forceps, and combined use of both', *J Matern Fetal Neonatal Med*, vol. 27, pp. 1886-1891