

Identifying modifiable risk factors for a high caesarean section rate of primiparous women: a retrospective record review

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Introduction

Primiparous women birthing at a level 5 Victorian regional hospital were identified to have a caesarean section in the upper quartile for Victorian Public Hospitals. We aimed to gain a detailed understanding of the characteristics, management and obstetric outcomes for primiparous women birthing at this centre in order to identify potentially modifiable factors for the high caesarean section rate

Methods

Following ethics approval, a retrospective record review was undertaken of births between July 1 2014 and June 30 2015. Selection criteria were primiparity and a gestation greater than 20 weeks. Records were identified via routinely collected data. Data was extracted manually and electronically. Analysis used descriptive and inferential statistics.

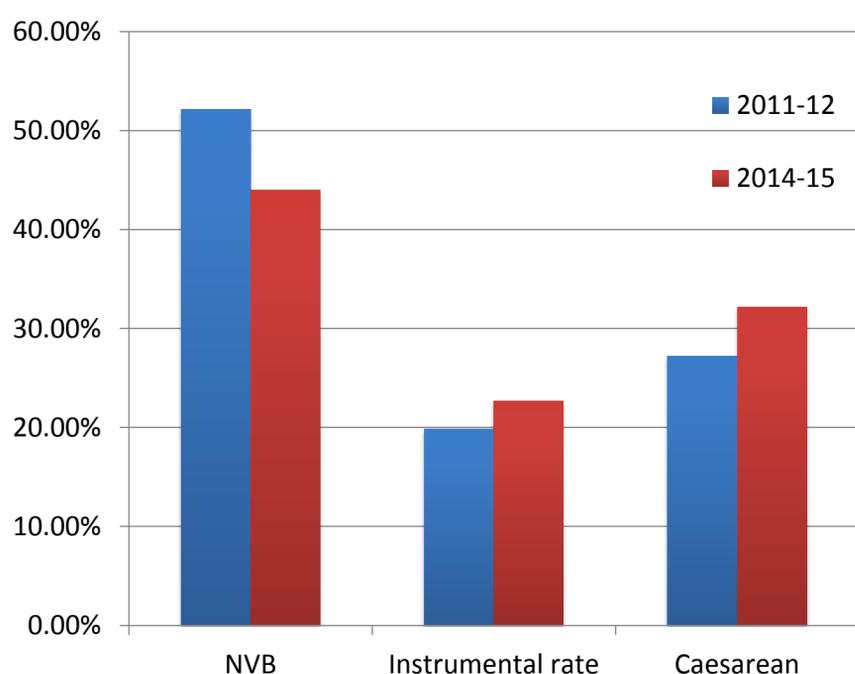


Fig 1. Modes of delivery

Results

Records from 540 primipara were identified. The mean age was 26.8 years, mean BMI was 26.0. The mode of delivery was normal vaginal delivery in 44.1%; instrumental in 22.6%; caesarean section in 32.8%; and vaginal breech in 0.6%. Caesarean section rate was increased with induced labour (32.3%) compared to spontaneous labour (17.9%) and in women who labored with epidural (41.3%) compared to women without an epidural (25.9%). Women had increasing caesarean section rate with increasing BMI. Average 5 minute apgar score was 8.9 in both elective and emergency caesareans and 8.5 in vaginal births. Consultants were present at 90% of emergency caesareans, 70% of forceps and 30% of ventouse births.

Conclusion

Potential modifiable factors explaining a regional service's outlier status in high caesarean section rate for primiparous women were epidural rate, elevated body mass index and induction rate in this study

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