

## Outcomes for severely obese women admitted to alongside midwifery units in the UK: results from a national cohort study using the UK Midwifery Study System (UKMidSS)

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### Objectives

We aimed to investigate outcomes in severely obese women admitted to alongside midwifery units (AMUs) compared with other women admitted to AMUs.

### Design

National prospective cohort study.

### Method

Using the UK Midwifery Study System (UKMidSS), we identified and collected data about all women with booking BMI >35kg/m<sup>2</sup>, admitted for labour care in all 122 UK AMUs, 1<sup>st</sup> January-31<sup>st</sup> December 2016, and comparison women with booking BMI ≤35kg/m<sup>2</sup> admitted to the same AMUs.

We used a composite primary outcome comprising: augmentation, instrumental/Caesarean birth, maternal blood transfusion, 3<sup>rd</sup>/4<sup>th</sup> degree tear and maternal admission to higher level care. Secondary outcomes included Category 1 or 2 Caesarean and postpartum haemorrhage (PPH) >1500ml.

We used log Poisson regression to calculate relative risks; all analyses were carried out separately by parity and overall.

### Results

Overall 1198 severely obese woman were reported, with median BMI=37kg/m<sup>2</sup> (range 35.1-56.7) vs 24kg/m<sup>2</sup> in the comparison group.

Severely obese women were no more likely than comparison women to experience the primary outcome: RR<sub>nullip</sub>=1.13(95% CI 0.96-1.32); RR<sub>multip</sub>=0.66 (95% CI 0.42-1.03). In nulliparous women, the severely obese group were more likely to have a Category 1 or 2 Caesarean (RR<sub>nullip</sub>=1.80; 95% CI 1.06-3.08) and their risk of a PPH>1500ml was higher (RR<sub>nullip</sub>=3.05; 95% CI 1.28-7.27).

### Conclusions

Admission of severely obese women to AMUs is widespread with evidence of selection, e.g. women with BMI 35-40k/m<sup>2</sup>. There is no evidence of increased risk for selected multiparous severely obese women planning birth in an AMU. Severely obese nulliparous women should be advised of the potential increased risks.

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