

## **MATERNITY WARD CONGESTION BLAMED FOR UNNECESSARY C-SECTIONS: Lack of midwives means risky operations and financial waste**

Many women who could have a natural birth end up delivering by caesarean section (C-section) due to an insufficient number of midwives in the maternity ward. That is the conclusion of research by **Gabriel Facchini**, to be presented at the annual congress of the European Economic Association in Geneva in August 2016.

Analysing data from a large hospital in Italy, the study finds that mothers-to-be who report to hospital when the ratio of patients to midwives is higher than 1.25 (five patients for every four midwives) are 24% more likely to give birth by C-section, even when there are no other differences in their health.

First-time mothers, single mothers and those without a college degree are more likely to be convinced to agree to a C-section.

Caesarean births are both more expensive and likely to cause health complications, the author notes: 'This means that approximately 3.5% of all C-sections in the sample are a result of a congested maternity ward, not of medical necessity.'

### **More...**

According to a World Health Organization (WHO) report from 2010, 'It is widely recognised throughout the WHO European Region that there are serious problems ensuring a sufficient number of well-qualified nurses and midwives', and several midwifery colleges have expressed similar concerns.

The new study attempts to fill this gap by comparing women who attempt to have a natural delivery and who, by chance, face a different ratio of patients-to-midwives on admission to the maternity unit.

Since the level of congestion is not known by the patient in advance, women observing low and high ratios are similar health-wise. At the same time, the hospital has no way of predicting when patients will arrive and staff shifts are set months in advance (based on historical admissions levels). This ensures that the results are a consequence of congestion and not of other factors.

Using data from one large hospital in Italy, the author finds that women who, on admission, face a ratio of patients-to-midwives higher than 1.25 (for example, five patients for four midwives) see a 24% rise in the probability of delivering by C-section, instead of vaginal birth. Because these surgeries are performed by a gynaecologist, transferring patients to the operative theatre releases some of the pressure on the midwives.

Other health outcomes do not seem to be affected by congestion, which suggests that by transferring some parturient women, midwives can better follow patients who remain in the maternity ward.

Under this scenario, physicians have to convince some patients to change delivery method and have a C-section instead. This should be easier in the case of women with lower bargaining power. Indeed, the data show that the change in delivery method due

to congestion takes place only for first-time mothers, single women and women without a university degree.

The increase in the rate of C-sections due to congestion is a reason for concern. According to the WHO, there is no evidence showing any benefit resulting from an unnecessary C-section. On the contrary, considered as major surgery, C-sections can cause complications that may affect the health of the woman, her child and future pregnancies.

In addition, agencies responsible for the budget of the public health system should also take an interest in the rise of C-sections since it costs more than a vaginal delivery (€2,092 versus €1,272 respectively ). This is particularly important in the case of Italy, which has the second highest rate of C-sections in Europe at 38%, compared with the WHO's ideal rate of 15%.

Key points:

- Women who, on admission, face a ratio of patients to midwives higher than 1.25 (e.g. five patients for four midwives) see a 24% rise in the probability of delivering by C-section (instead of vaginal birth).
- The change in delivery method due to congestion takes place only for first-time mothers, single women and women without a university degree, all of which have lower bargaining power at the moment of deciding whether to accept the physician's recommendation of a C-section.
- This means that approximately 3.5% of all C-sections in the sample are a result of a congested maternity ward, not of medical necessity.

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