Author’s response to reviews

Title: Screening for inter-hospital differences in cesarean section rates in low-risk deliveries using administrative data. An initiative to improve the quality of care

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Author’s response to reviews: see over
Response to review by E.R. Declerq

Re: “primary elective cesareans” we agree that they are a key variable in the containment of rising CSRs.

Re: “previous CS” we fully agree that one is not allowed to consider this condition as a low risk delivery and that deliveries presenting this condition should be removed from a inter-hospital comparison of CSRs in low risk deliveries.

Re: “under-coding of epidurals and induction”, we also hold the opinion that this limitation of administrative data and their impact has to be discussed.

We therefore include, on page 17, the following wording:

The miscoding of these conditions may induce serious flaws in the inter-hospital comparison. Indeed, each of them is related with higher CSRs and may reflect differences in medical or coding practices across hospitals. Therefore, given the magnitude both of the occurrence of these conditions and of the miscoding, we omitted them in the definition of our study population, whereas we used the term screening for inter-hospital differences, which should be completed by external or internal audits. Owing to the very nature of our data, we were unable to formally distinguish between primary elective and repeat cesareans. This can be viewed as another limitation, and, while further analyses of the primary elective cesareans are of major interest as they are the first starting point to contain rising CSRs, the joint analysis is of use for the research question central in this work. Consequently, to avoid flawed inter-hospital comparisons and to improve the effectiveness of the CSR as a quality indicator, multi-faceted actions such as dissemination of the present results in the hospitals, the adoption of explicitly to-filled-out items, quality control of the data and audits are required.
Response to review by J.C. Glantz

Re: 1. page 1 We now include following paragraph:
Meikl et al.[1] describe elective caesarean as:” Elective cesarean deliveries can include medically and obstetrically indicated procedures that generally occur before labor. Elective cesarean deliveries can also include procedures for which there is no clear medical or obstetric indication.” In the framework of a quality indicator, which aims at to monitor and reduce the caesarean rate[2], both aspects of their description are to be considered.
When comparing the CSRs between hospitals it is then important to exclude from the comparison medically and obstetrically indicated cesarean sections[3] and only to include procedures for which there is no clear medical or obstetric indication. We will call the latter type of cesarean sections: “elective cesareans” in the remainder of this manuscript. We also consider a repeat cesarean as medically and obstetrically indicated and therefore to be excluded from the comparison.

Re: 2. We fully agree that, given current practices regarding hypertensive disease and diabetes, both conditions confer higher risk of undergoing a cesarean.
The sentence regarding hypertensive disorders and diabetes on page 18 accordingly has been modified as follows:
Although the medical necessity of systematically carrying out a CS in case of diabetes without macrosomia [4] and hypertensive disorders (except some cases of eclampsia with acute fetal distress persisting beyond 10-15 minutes) [5] has not yet univocally been established, current practices are associated with higher caesarean rates.
Re: 3. Our intention being to compare CSRs between hospitals in low risk deliveries we did not further investigate the comparison population, considered high risk, apart from calculating its CSR, which amounted to 49.68% versus 12.98% in the study population. Also, in our opinion, in the operational perspective of monitoring and reducing the CSR it seems naturally to start by reducing the CSR in low risk deliveries.

Note: we also moved the Annex to the Supplementary Material.

Reference List


