

The Project Appropriate Birth: significance of the Robson classification in confronting the caesarean section “pandemic”

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Worldwide, caesarean section rates have soared over the last 30 years, and the WHO has recommended the Robson classification system as a global standard for assessment, monitoring, and comparison of caesarean section rates: however, it not yet widely used in daily practice in certain countries, with many reporting extremely high rates of caesarean sections. This reduction is expected to lead to further improvement in maternal and neonatal morbidity (Vrachnis et al. *Int J Gynaecol Obstet* 2011;115(1):16-9).

The article by Ferreira D’Agostini Marin et al. (BJOG-21-0235.R1) shows a significant reduction of caesarean section rates after implementation of interventions based on the Robson 10-group classification system. This is a well-designed before/after study, incorporating a significant number of deliveries in Brazil. The researchers found that the main contributors to caesarean section rates were group 5 and group 2, thus pinpointing those groups on whom future interventions should focus. It would also be of great interest to see the impact of this intervention on caesarean section rates in the Project Appropriate Birth (PPA) in more maternity hospitals in Brazil.

The reasons for a high caesarean section rate may differ between countries; however, the complications are likely to be the same. The explanation for the increased rate of caesarean section is complex, as it is the result of multiple factors (Gregory et al. *Am J Perinatol* 2012;29(1):7-18). The indications for caesarean section are clearly defined by scientific societies and organisations and should not be disregarded or misinterpreted in practice. At the same time, special characteristics of obstetric practice nowadays should not be ignored either as they explain the increased rates of caesarean section, such as the significantly higher age of pregnant women compared to the past, a result both of advances in IVF as well as of the modern way of life. Inevitably, the possibility of pathology coexistence as a medical indication for caesarean section has increased.

Further interventions are evaluated in the ENGAGE (ENhancinG vAGinal dElivery) Trial (ClinicalTrials.gov: NCT04504500, which is a prospective study that started in June 2021 in Greece. It is a nationwide trial that develops 10 interventions in a stepped-wedge clinical trial aiming to reduce caesarean section rates and

systematically investigate the causes of Greece's high caesarean section rate. It involves 22 Greek maternity units, the health care providers from most Greek regions, and both public and private hospitals, with different facilities, aiming at a highly representative sample. Secondary outcomes studied are maternal and neonatal morbidity and mortality.

An integrated approach is needed to address the problem. Nevertheless, the current increase perpetuates itself through a vicious cycle; the education of health care providers should be improved along with public awareness. Health care providers should also be encouraged to avoid practising "defensive medicine" due to litigation risks. The relevant authorities of each country should also assume their share of the responsibility, understaffing of the Public Health Systems (obstetricians, midwives, and anaesthesiologists) in certain countries impacting caesarean section rates. Further long-term studies are essential to scrutinize the underlying issues and develop more effective strategies to reduce caesarean section rates.

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