

# Incidence and risks of caesarean section in women aged $\geq 40$ yrs.

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## Description

Caesarean section is a frequent type of delivery in Italy when complications show up and it's frequent in women giving birth at higher age. This is not a risk-free procedure, both for the mother and the children, so it's important to evaluate the incidence of its application. The purpose of this study is to evaluate the rates of childbirth in women over 40 years of age in Tuscany (Italy) outlining the indications for caesarean section in this parturient population. Methodology: 251,407 women who delivered in Tuscany from 2011 to 2019 using data of Birth Assistance Certificate linked with hospital discharge registry were observed. Caesarean section indications were reported as dismissal diagnoses. Logistic models (adjusted for parity, ART and BMI) were carried out for the maternal age risk factor.

In Tuscany, women who deliver at 40 and over increased from 7.4% of pregnant women in 2011 to 9.9% in 2019. Even women aged at least 43 years increased from 1.6% to 2.8%. Caesarean section is performed more frequently in women aged 40 and over: 39.4% at 40-42 years, 58.2% at 43 and more (25.4% in women under 40), both in single and in multiple pregnancies. The caesarean section rate increases significantly with age.

Multivariate analysis confirmed that women over 40 years of age have a higher risk of a caesarean section due to pathologies such as diabetes or eclampsia which are clearly more frequent in these categories of women. Furthermore, the data shows that the caesarean section in some cases was carried out due solely to the age of a primiparous woman. The phenomenon affects health services and social costs and should make us reflect upon the underlying reasons that bring women to delay their reproductive project and where necessary implement appropriate political strategies.

To study the effects of comparison a complete course with an incomplete course of dexamethasone on the incidence of respiratory distress syndrome in newborn infants aged below 34 weeks. A retrospective cohort study conducted on 118 pregnant patients at 24-33+6 weeks of gestation. The sample

was divided into two groups: the first group consisting of 63 pregnant patients who received an incomplete course of dexamethasone (<4 doses) prior to delivery and the second group comprising 55 pregnant patients who received a complete course of dexamethasone prior to delivery (within 14 days after the first dose). Data were collected from electronic medical records to obtain information about the baseline characteristics of the sample, as well as the number of doses of dexamethasone received and the incidence of Respiratory Distress Syndrome (RDS), Intra Ventricular Hemorrhage (IVH), Necrotizing Enterocolitis (NEC), Early-Onset neonatal Sepsis (EOS), and neonatal death.

The rates of RDS incidence and neonatal death amongst pregnant patients who received a complete course of dexamethasone significantly decreased from 74.6% to 50.9% (AOR, 0.37; 95% CI, 0.17-0.84) and from 12.7% to 1.8% (AOR, 0.10; 95% CI, 0.01-0.98), respectively, when compared with pregnant patients who received an incomplete course of dexamethasone. Alternatively, there were no statistically significant differences between the two groups in terms of the incidence of IVH, NEC, Patent Ductus Arteriosus (PDA), NICU admission within the first 7 days of birth, and surfactant requirement. Meanwhile, the incidence rate of EOS increased from 19% to 26.5% (AOR, 3.18; 95%CI, 1.13-8.97). The administration of a complete course of dexamethasone to pregnant patients with gestational age of less than 34 weeks is conducive to a decrease in the incidence of RDS and neonatal death, while contributing to an increased incidence of EOS.

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