Changes in iatrogenic versus spontaneous preterm births over time: a population-based cohort study

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Objective
To examine the proportion of iatrogenic among all preterm births over a 26 year period.

Methods
A registry-based survey of all deliveries at <37 completed weeks between 1987 and 2012 was carried out. The deliveries were analysed according to the onset of labor: spontaneous preterm labor with intact membranes, preterm premature rupture of membranes or iatrogenic preterm birth. Further stratification into 3 categories by gestational age (22+0-27+6, 28+0-31+6, and 32+0-36+6 weeks) was performed. We analysed the changes in rates and perinatal mortality within different subtypes of preterm deliveries.

Results
Overall, the preterm birth rate was 5.9% (31328 deliveries) including 2358 (0.4%) before 28 completed weeks' gestation, 3388 (0.6%) between 28+0-31+6 weeks, and 25581 (4.9%) between 32+0 and 36+6 weeks. A slight increase in late preterm births without significant changes in overall preterm birth rate was observed but at the same time, a marked increase in iatrogenic preterm births across all three gestational categories was noted. The decline in perinatal mortality among spontaneous vs. iatrogenic preterm births showed no statistical significance.

Conclusion
The proportion of iatrogenic preterm births has increased in all gestational age categories over the last decades without significant increase in the overall preterm birth rate. Attempts to analyse, interpret and decrease preterm birth rates should therefore consider spontaneous and iatrogenic preterm births as separate entities.