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Background Spontaneous miscarriage (the death of a fetus before 20 weeks of pregnancy), occurs in 10–15% of recognised pregnancies. Stillbirth (the death of a fetus after 24 weeks of pregnancy), occurs in approximately one in every 200 deliveries. The cause of miscarriage and stillbirth is frequently unknown. However, there is some evidence to suggest that previous Caesarean delivery may be a risk factor.

Objective: to compare the risk of fetal death in subsequent pregnancy by mode of delivery.

Methods This was a systematic review of relevant studies identified through CINAHL, the Cochrane library, Embase, Medline, PubMed, SCOPUS and Web of Knowledge (1945–November 2011), using a comprehensive search strategy, and cross-checking of reference lists. Study selection: cohort and case-control studies reporting on Caesarean delivery and spontaneous miscarriage or stillbirth. Two reviewers independently assessed titles, abstracts, and full articles to identify eligible studies, using a standardised data collection form.

Results *Miscarriage:* From 6,857 titles identified, eight articles were included, totalling 147,017 women and 12,682 events. Odds ratios (ORs) were combined using a fixed-effect model to estimate the overall association using Review Manager Software. From the meta-analysis, the pooled OR estimate of miscarriage among women who previously delivered by Caesarean versus vaginally, was 1.11 [95% CI 1.06, 1.17]. The OR of miscarriage was 1.26 [95% CI 0.54, 2.92] for one case-control study, 1.11 [95% CI 1.06, 1.17] for seven cohort studies and 1.11 [95% CI 1.06, 1.17] for primiparous women (eight studies).

Stillbirth: From 6,857 studies identified, seven articles were included, totalling 1,661,335 pregnancies and 5,741 events. ORs were combined using a random effect model (due to the heterogeneity of included studies) to estimate the overall association. From the meta-analysis, the pooled OR estimate of stillbirth among women who previously delivered by Caesarean versus vaginally, was 1.32 [95% CI 1.11, 1.57]. The OR of stillbirth was 1.30 [95% CI 1.03, 1.64] for primiparous women (five studies), 1.40 [95% CI 1.24, 1.59] for multiparous women (two studies), 1.80 [95% CI 1.27, 2.55] for studies including all stillbirths (five studies) and, 1.20 [95% CI 1.02, 1.42] for studies including only unexplained antepartum stillbirths (three studies).

Conclusion Caesarean delivery compared to vaginal delivery is associated with an increased risk of spontaneous miscarriage by 11% and stillbirth by 32% in subsequent pregnancies. In light of the recently published National Institute for Health and Clinical Excellence (NICE) guidelines, which support a woman's right to request a Caesarean delivery without medical reason, there is an urgent need to establish whether mode of delivery has a causal effect on risk of fetal death.

OP46

THE ASSOCIATION BETWEEN PRIVATE PATIENT STATUS AND CAESAREAN DELIVERY: A RETROSPECTIVE COHORT STUDY OF 403,642 CHILDBIRTH HOSPITALISATIONS

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Background The increase in Caesarean delivery rates over the past decades has resulted in it becoming one of the most commonly performed in-hospital surgical procedures. While many Caesarean deliveries are clinically indicated, other factors, such as medico-legal fears and maternal and health professional preferences, contribute

to the decision-making process. To explore non-clinical factors, we investigated differences in Caesarean delivery rates and temporal trends by private and public patient status while giving consideration to patient case-mix.

Methods A retrospective cohort study was performed on childbirth hospitalisations occurring between 2005 and 2010 in the Republic of Ireland. Procedural ICD-10-AM codes from hospital discharge records were used to identify emergency and elective Caesarean deliveries. Temporal trends in Caesarean delivery were determined using a Cochrane-Armitage test for trend. Multivariate multinomial regression analysis was used to determine the odds of Caesarean delivery (emergency or elective versus vaginal delivery) by mother's public or private status while adjusting for age, multiple gestation, previous Caesarean delivery, induction of labour, maternal morbidity and other obstetric complications.

Results 403,642 childbirth hospitalisations reviewed; approximately one-third of women (30.2%) were booked privately. Women booked privately were more likely to be at least 30 years of age or older, married and have had a previous Caesarean delivery. Over the study period, the overall Caesarean rate increased from 22.2% to 23.8% among women booked publicly versus 30.2% to 34.7% among women booked privately (test for trend p -value <0.0001). While the emergency Caesarean rate was similar between both groups of women (14.3% versus 13.3% respectively), women booked privately were almost twice as likely to have an elective Caesarean delivery (17.8% versus 9.4%). After adjustment, women booked privately had an increased odds of both emergency (adjusted OR: 1.32; 95% CI 1.29, 1.35) and elective (adjusted OR: 1.88; 95% CI 1.83, 1.93) Caesarean delivery.

Conclusion Irrespective of obstetric risk factors, women who opted for private maternity care were significantly more likely to have a Caesarean delivery than women booked publicly. Moreover, while increasing trends in Caesarean delivery were observed among all women, the increase was disproportionately higher among women booked privately. These findings suggest that significant differences in Caesarean rates are unlikely to be explained by differences in clinical risk factors. Mixed-method research is clearly warranted to explore disparities in Caesarean delivery rates. Such research should focus on clinical decision making and the role of personal preferences of women and maternity care professionals in decisions regarding mode of birth.

OP47

EFFECT OF HIGH PROFILE QUALITY FAILURES ON PATIENT NUMBERS IN THE ENGLISH NHS

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Background Policy architects are keen to emphasise that releasing information on the quality of hospitals into the public domain will drive patients away from poor quality providers and thus motivate system wide improvements. However, previous evidence on the impact of releasing quality information to the public have been mixed, with various reasons being proposed as possible barriers, including patients being unaware of the information available, being unable to understand it, or feeling it to be irrelevant. We examined three cases of high profile reports into failings in quality and safety at English NHS hospitals in order to assess whether this negative publicity was associated with a decrease in patient numbers. These reports all garnered significant media attention and presented a stark picture of performance and so we hypothesise that such negative coverage may have induced a fall in patient numbers.

Methods We analysed trends in admission for nonemergency admissions with a difference-in-difference approach, using four separate comparison groups: (1) matched on previous hospital