

Table 1. Univariable and multivariable analysis

Candidate predictor	Univariable OR (95% CI)	Multivariable OR (95% CI)
Dilation (none vs. any)*	1.47 (1.96-1.11)	1.35 (1.89-0.98)
Consistency of cervix[‡]		
Moderately soft vs. stiff	0.97 (0.72-1.33)	Not selected
Soft vs. stiff	0.62 (0.29-1.31)	
Engagement* (Hodge 2 vs. Hodge 1)	1.53 (0.73-3.23)	Not selected
Maternal age	1.04 (1.01-1.07)	1.06 (1.03-1.10)
BMI		
20-25 vs <20	1.65 (0.84-3.24)	1.50 (0.74-3.07)
25-30 vs <20	2.21 (1.12-4.39)	2.25 (1.09-4.64)
30-35 vs <20	2.49 (1.18-5.27)	2.81 (1.25-6.33)
>35 vs <20	2.97 (1.37-6.42)	3.04 (1.31-7.08)
Maternal height	0.94 (0.92-0.96)	0.94 (0.91-0.96)
Gestational age[‡]	1.12 (1.03-1.23)	Not selected
Parity (nulliparous vs. multiparous)	5.00 (7.69-3.33)	7.14 (11.1-4.35)
Indication for induction^Δ		
Hypertensive disorders	1.46 (0.89-2.41)	0.58 (0.33-1.05)
Oligohydramnion	2.43 (1.03-5.74)	1.09 (0.41-2.88)
IUGR	0.87 (0.39-1.93)	0.41 (0.17-1.03)
Decreased fetal movements	0.96 (0.27-3.62)	0.13 (0.02-1.08)
Maternal disease	1.40 (0.60-3.27)	0.79 (0.30-2.09)
Post term pregnancy	1.83 (1.11-3.00)	0.98 (0.55-1.73)
Diabetes	1.93 (0.98-3.80)	0.79 (0.35-1.77)
Other indication	0.86 (0.18-4.05)	1.00 (0.18-5.50)

* at study entry
[‡] compared to elective induction
^Δ compared to elective induction

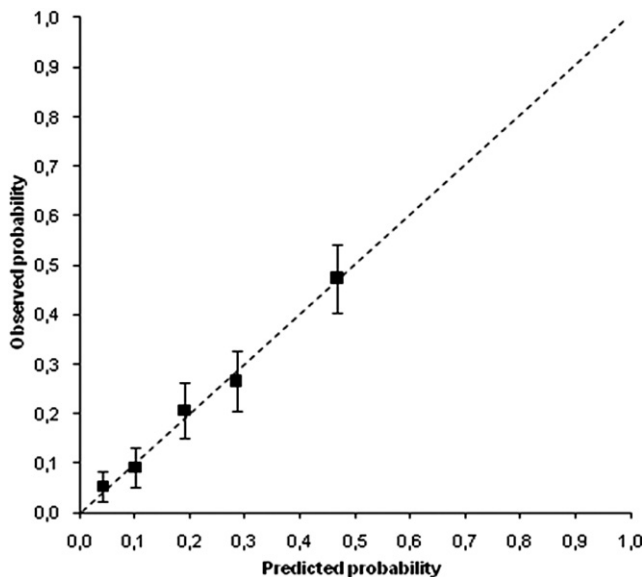


Figure 1. Calibration plot, showing the average observed CS rate (Y-axis) against the average calculated CS rate (X-axis), in five risk groups. In case of perfect calibration all points would be on the diagonal.

307 A comparison between vaginal misoprostol and a combination of misoprostol and Foley catheter for cervical ripening and labour induction in early third trimester pregnancy

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OBJECTIVE: To compare the efficacy of two different techniques for cervical ripening and labour induction in early third trimester pregnancy.

STUDY DESIGN: This is a randomized controlled clinical trial. Two hundred pregnant women in early third trimester were enrolled in the study. They had either intrauterine fetal death or severe preeclampsia which necessitated pregnancy termination but patients refused cesarean delivery due to low chance of postnatal survival. Subjects were randomized into two groups: in group 1: an Intrauterine Foley catheter was inserted plus 4 doses of misoprostol 50µg every 6 hours. In group 2: Misoprostol only was administered in a dose of 50µg every 6 hours.

RESULTS: There was significant shortening of the interval from induction to establishment of active phase in nulliparous women in the first group (P=0.003) with significant reduction of induction to delivery time interval in both nulliparous and multiparous women in the same group more than that in the misoprostol group (P=0.006 and 0.001 respectively). The number of cesarean deliveries due to failed induction were significantly reduced in the first group among nulliparous women (P=0.02) in comparison to group 2. There were no cases of chorioamnionitis or postpartum endometritis in women used Intrauterine Foley catheter.

CONCLUSION: A combination of Intrauterine Foley catheter plus misoprostol was more effective than misoprostol alone in cervical ripening and labour induction in early third trimester pregnancy.

308 Impact of maternal BMI on induction of labor

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OBJECTIVE: To determine the impact of increasing maternal BMI on rates of induction of labor and risk of cesarean delivery over time.

STUDY DESIGN: Retrospective cohort study of birth records linked to hospital discharge data for all live born singleton infants ≥37 weeks gestation born to Missouri residents from 1993-2006. Chi-square tests were used to compare dichotomous outcomes and Cochran-Armitage test of trend was used to assess statistical significance over time. Multivariable regression adjusted for maternal age, race, education, insurance, parity, level of prenatal care, smoking status, and infant gender.

RESULTS: There were 930,954 births meeting study criteria with an overall induction rate of 27.3% (n=253,825). The rate of induction rose significantly over time from 19.1% in 1993 to 32.4% in 2006 (p-value <.0001) (Figure). Increasing maternal BMI was significantly associated with an increased risk of induction compared to normal weight women for both overweight (aOR 1.24, 95% CI 1.22, 1.25) and obese women (aOR 1.43, 95% CI 1.41, 1.45). Underweight was protective against induction (aOR 0.84, 95% CI 0.82, 0.86). Compared to normal weight women undergoing induction, underweight women were less likely to require cesarean (aOR 0.63, 95% CI 0.57, 0.69) while overweight (aOR 1.57, 95% CI 1.51, 1.63) and obese women (aOR 2.50, 95% CI 2.41, 2.59) were at significantly increased risk of cesarean following induction.

CONCLUSION: The rates of induction of labor have increased over time but appear to be static. Increasing maternal BMI is a significant risk factor for induction of labor, and as maternal BMI increases, the risk of cesarean delivery following induction also increases.

