

New method of managing risk in pregnancy leads to healthier newborns, better outcomes for moms

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An alternative method for obstetric care has led to lower neonatal intensive care unit (NICU) admission rates, higher uncomplicated vaginal birth (UVB) rates, and a lower mean Adverse Outcome Index (AOI) score, according to a new study from the University of Pennsylvania School of Medicine and published in this month's issue of the American Journal of Obstetrics and Gynecology.

The alternative method is known as Active Management of Risk in Pregnancy at Term, or AMOR-IPAT, for short. AMOR-IPAT uses "risk-based preventative labor induction to ensure that each pregnant woman enters labor at a gestational age that maximizes her chance for vaginal delivery," says lead researcher, James M. Nicholson, MD, Assistant Professor of Family Medicine and Community Health at Penn.

"Over the past decade, the rates of cesarean delivery have climbed above 30%," says Dr. Nicholson. "Cesarean delivery, when compared with vaginal delivery, is associated with higher rates of postpartum hemorrhage, major postpartum infection and hospital readmission," he adds.

Unlike previous retrospective studies of labor induction, this study attempted to minimize confounding factors by using a randomized prospective design. The study included 270 women who were recruited when they were between 32 and 37½ weeks into their pregnancy.

Women who remained undelivered at 37 weeks 4 days of gestation were randomized to either AMOR-IPAT or usual care. Three facilities within the University of Pennsylvania Health System recruited women, including the Hospital of the University of Pennsylvania Obstetrics Clinic, the Pennsylvania Hospital Obstetrics Clinic, and Penn Family Care.

Risk factors for the AMOR-IPAT exposed group were identified and categorized as either interfering with placental growth or accelerating fetal growth. Each of these factors is associated with a published odds ratio for cesarean delivery, which, in turn, is used to determine the optimal time of delivery. If a woman in the exposed group did not experience spontaneous labor as she approached the end of this time frame, preventative labor induction was scheduled. In the AMOR-IPAT group, the greater the number and severity of risk factors, the earlier preventative labor induction was offered within the term period (38 – 41 weeks of gestation).

The findings of this study suggest that the AMOR-IPAT approach to obstetric risk lead to healthier babies and better birth outcomes for mothers. In addition, the results challenge the current belief that a greater use of labor induction necessarily leads to higher rates of cesarean delivery. In order to further explore the potential benefits of the AMOR-IPAT method of care, further research involving larger randomized clinical trials in more diverse populations is needed.

Source: University of Pennsylvania

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