Talking Points: The ARRIVE Trial

ABOUT THE STUDY:

- Randomized controlled unmasked trial
- Multicenter, 41 hospitals participating in the Maternal-Fetal Medicine Units Network of the Eunice Kennedy Shriver National Institute of Child Health and Human Development
- Low-risk nulliparous women, singleton pregnancy, vertex position, reliable due date confirmed by early ultrasound, no medical induction for induction
- 3062 women assigned to be induced (IOL group) at 39 weeks, 0 days to 39 weeks, 4 days
- 3044 women assigned to expectant management (EM group) – no elective induction before 40 weeks, 5 days, birth or induction initiated before 42 weeks, 2 days

HYPOTHESIS: “That elective induction of labor at 39 weeks would result in a lower risk of a composite outcome of perinatal death or severe neonatal complications than expectant management among low-risk nulliparous women.”

STUDY CONCLUSIONS: “Induction of labor at 39 weeks in low-risk nulliparous women did not result in a significantly lower frequency of a composite adverse perinatal outcome, but it did result in a significantly lower frequency of cesarean delivery.”

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| Cesarean rate         | 18.6%     | 22.2%    | According to nurse researcher, Rebecca Dekker, induction at 39 weeks (in this study) reduced the risk for cesarean by 16%. She points out that there are other more effective ways to decrease the cesarean rate such as continuous support (25%) or using intermittent auscultation (39%).
| Preeclampsia/Gestational hypertension In this study, gestational hypertension was defined simply as “blood pressure elevation after 20 weeks in absence of proteinuria or other systematic findings as defined below.” | 9% | 14% | ACOG defines gestational hypertension as “a systolic blood pressure 140 mm or more or a diastolic blood pressure of 90 mm or more, or both, on two occasions at least 4 hours apart after 20 weeks of gestation, in a woman with a previously normal blood pressure.” |
| Neonatal respiratory support needed within 72 hours of birth | 3% | 4.2% | No difference between the two groups in the number of babies admitted to the NICU. |

CAUSES FOR CONCERN

- “More than 50,000 women were screened for eligibility; more than 44,000 were excluded; and more than 16,000 [73%] declined to participate. Data from the National Center for Health Statistics suggest that trial participants differed from the general population of women who delivered in the US in 2016.” [Thus, results may not be generalizable to other populations.]
- “If labor guidelines and [ACOG] induction failure definitions are not adopted [by providers offering elective induction at 39 weeks], the cesarean rates will likely rise significantly.”

ADDITIONAL KEY POINTS

- Almost all labor inductions require additional medical interventions such as continuous electronic fetal heart rate monitoring, IV fluids, and epidural analgesia.
- ACOG emphasizes that up to 24 hours or more should be allowed for latent labor and that oxytocin should be administered for at least 12 to 18 hours after membrane rupture before deeming the induction a failure.
- Routine elective induction at 39 weeks is not appropriate for the low-risk woman who plans a normal, physiologic birth using nonpharmacologic pain management strategies.

SEE REVERSE SIDE FOR PROFESSIONAL ORGANIZATION RESPONSES AND REFERENCES
PROFESSIONAL ORGANIZATION RESPONSES

American College of Nurse-Midwives

“The American College of Nurse-Midwives (ACNM) affirms its support for the promotion of normal healthy physiologic birth and a women’s right to self-determination as we acknowledge the publication of the ARRIVE trial results…”


American College of Obstetricians and Gynecologists (ACOG)

“ACOG and SMFM have reviewed the published results of the ARRIVE Trial and determined that it is reasonable for obstetric care providers to offer an induction of labor to low-risk women after discussing the options thoroughly, as shared decision-making is a critical element.”


Association of Women’s Health, Obstetric, and Neonatal Nurses (AWHONN)

AWHONN supports the following...
- Collaboration between nurse leaders and the maternity care team to establish and implement policies and practices that support spontaneous labor, …”


Society of Obstetricians and Gynaecologists of Canada (SOGC)

“However, it is not appropriate to recommend elective induction solely to reduce the risk of caesarean section in an otherwise low risk nulliparous patient at this time.”


REFERENCES

2. Dekker, R. (2018). Evidence Based Birth. Evidence on: The ARRIVE trial. https://evidencebasedbirth.com (You will need to provide your email address on the “Resources for Professionals” webpage to access the free handout.)

ALSO RECOMMENDED
