

Comments on the Arrive Trial

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The Arrive Trial was released on February 1st at the Society for Maternal Fetal Medicine's Annual Meeting.¹ The Arrive trial was a randomized controlled trial comparing labor induction at 39 weeks to expectant management to 42 2/7 weeks among low risk nulliparous women. The primary outcome was a composite of perinatal outcomes and the secondary outcome was cesarean birth. The trial included 3,000 women in each arm and was performed in University hospitals belonging to the NICHD Maternal Fetal Medicine Network. The composite neonatal outcome was not statistically different (rates of perinatal death, very low Apgars, seizures, HIE, birth trauma, and infection were the same; rates of respiratory complications were slightly higher--perhaps related to increased meconium after 41 weeks). The rates of cesarean birth were 18.6% in the immediate induction group and 22.2% in the expectant management group. The authors stressed that having a standardized approach to the management of labor and clear-cut definitions for induction failure were critical to the success of the low rates of cesarean with labor induction.

Comments:

- (1) The patient population in this study was both very low risk (mean age =24yrs, and all women with any medical complications were excluded) and quite interested in labor induction (fully 75% of eligible patients refused entry into the trial). Nonetheless, a cesarean rate of 18.6% following labor induction in nullips is quite an accomplishment.
- (2) Most hospitals do not come anywhere near this rate. The rate of cesarean after labor induction in low-risk nullips among the 240 California hospitals averages 32% with rates as high as 60%.
- (3) All hospitals in the Arrive trial used a common definition of failed induction (a cesarean for any reason following labor induction): **Cesarean delivery should not be undertaken during the latent phase prior to at least 15 hours after rupture of membranes have occurred with concurrent oxytocin administration.**² After that point, the decision to continue labor in latent phase was individualized. Once in Active Phase (6 centimeters dilation), ACOG/SMFM guidelines were followed for the diagnosis of labor arrest and descent disorders.

Bottom Line:

- (1) There are currently no changes to the SMFM/ACOG guidelines for induction of labor. Specifically, induction of labor at less than 41 weeks 0 days with an unfavorable cervix should only be performed for medical indications.
- (2) It needs to be repeated that the results in this study were obtained in university hospitals with strict labor guidelines and a strict definition of failed induction. **If a hospital's induction guidelines are to be changed to allow for elective inductions at 39 weeks, strict guidelines for defining failed induction (see above) and for management of active phase and fetal monitoring abnormalities need to be adopted simultaneously.**
- (3) If labor guidelines and induction failure definitions are not adopted, the cesarean rates will likely rise significantly.
- (4) Induction of labor with an unfavorable cervix takes a very long time to do following guidelines and will impact room availability and nursing hours.

¹ Grobman WA, et al. A randomized trial of elective induction of labor at 39 weeks compared with expectant management of low-risk nulliparous women. *Am J Obstet Gynecol* 2018; 218:S601.

² Grobman WA, et al. Defining failed induction of labor. *Am J Obstet Gynecol*. 2018; 218:122.e1-8