

**Kurt Barnhart MD MSCE**

**Fresh or frozen embryo transfer**

There have been dramatic advances in IVF that have led to improved success rate. As techniques have improved one has been able to focus on specific aspects of the IVF process. Implantation represents one of the important steps for the success of assisted reproduction techniques (ART). As success rates have improved with the transfer of cryopreserved/thawed embryos, the focus turned to the receptivity of the endometrium as a factor diving success. Epidemiologic evidence suggested that children conceived after a frozen/thawed embryo transfer were less likely to be born at low birth weight. This finding suggested that early placentation may be affected by the hyperstimulation required to obtain multiple eggs for the process of IVF. It has also been hypothesized that supraphysiologic levels of estradiol (E2) and progesterone (P) during the follicular phase may lead to morphologic and biochemical endometrial alterations and a more advanced endometrium than in natural cycles. Ultimately, these physiologic changes may affect the success rates of the treatments. Early cohort studies suggested IVF success rates may be improved with purposeful cryopreservation of all embryos, a “freeze only” strategy, with transfer in a more “natural” environment. Since there have been a number of randomized clinical trials evaluating this issue with mixed results. This talk will review the data regarding the strategy or “freeze only” for IVF on overall outcome, the rate of miscarriage and ovarian hyperstimulation. A recent meta-analysis of four clinical trails reported the cumulative live birth rate between the freeze-all strategy and the conventional IVF/ICSI strategy was similarly (odds ratio (OR) 1.09, 95% confidence interval (CI) 0.91 to 1.31). The prevalence of OHSS was lower after the freeze-all strategy (OR 0.24, 95% CI 0.15 to 0.38 and the freeze-all strategy was associated with fewer miscarriages (OR 0.67, 95% CI 0.52 to 0.86)