

# Luteal Phase Support



**Kaylen M. Silverberg, MD**  
Founding Partner & Medical  
Director  
Texas Fertility Centers &  
Austin IVF  
Austin and San Antonio, TX

Over the past 5-10 years,  
there have been two  
transformational shifts in

IVF. First, there has been a significant increase in the use of preimplantation genetic embryo testing. This has been due to increases in the quality of genetic testing and the corresponding transition from multi cell embryo biopsy and testing with fluorescence in situ hybridization (FISH) to blastocyst biopsy and testing with next generation DNA sequencing (NGS). Second, with the advent of embryo vitrification, embryo survival rates have increased to the point that frozen embryo transfer (FET) is now a legitimate treatment alternative to fresh embryo transfer (ET). Data suggesting that babies born following FET may be healthier than babies born following fresh ET have further fueled the transition to FET.

This transition has necessitated a scientific search for the optimal stimulation regimen, i.e., one that will maximize pregnancy rates. A variety of cycle types have been evaluated, including the natural cycle, cycles stimulated with multiple different modalities of estrogen and progesterone, and cycles stimulated with letrozole. While natural cycles make intuitive sense, challenges of scheduling, irregular cycles, and premature ovulation complicate their routine use. Programmed cycles offer significant scheduling advantages, which make them a very attractive alternative. Due to the multiple options available — not only for estradiol stimulation of endometrial development, but also for the progestins needed to support implantation and early pregnancy — there continues to be significant debate about the best programmed regimen to employ.

This presentation will provide an overview of these regimens and evaluate comparative studies so that attendees can objectively assess the relative value of each regimen.