PPCOS II Secondary Research Hypotheses

1. Treatment with letrozole is more likely to result in singleton pregnancy compared to treatment with clomiphene citrate. Singleton pregnancy is defined as presence of a single intrauterine gestational sac with a single fetal pole and observable heart motion.
2. Treatment with letrozole will less likely result in a first trimester intrauterine fetal demise (IUFD) than treatment with clomiphene citrate. A first trimester IUFD is defined as a pregnancy that ends before 13 weeks gestation.
3. Treatment with letrozole is more likely to result in ovulation (increased ovulation rate) compared to treatment with clomiphene citrate. Ovulation is defined as a midluteal progesterone level ≥ 3 ng/mL.
4. The shortest time to pregnancy will be with letrozole.
5. Age, body mass index, SHBG, testosterone, LH, Anti-Mullerian Hormone (AMH), and degree of hirsutism and acne will be significant predictors of ovulation and conception regardless of treatment.
6. Improvement in SHBG, testosterone, AMH, and LH levels will be significant predictors of ovulation and conception regardless of treatment.
7. DNA polymorphisms in estrogen action genes will predict response to study drug.
8. Quality of Life will be better on letrozole than clomiphene.
9. Letrozole will be more cost effective at achieving singleton pregnancies than clomiphene.