Baseline Labs and Ultrasound Exam

Performed on Cycle Day 1-3

The baseline laboratory assessment includes testing for: FSH, LH, estradiol, progesterone, TSH and prolactin. Abnormalities in these hormones can effect ovulation or implantation. Assessment of these hormone levels can be important in determining an appropriate medical treatment to normalize ovulation and enhance fertility.

Thyroid stimulating hormone (TSH), is the main hormone involved in metabolism. Women with hyper- or hypothyroidism may have menstrual irregularities and stop ovulating. By identifying and treating a thyroid abnormality, ovulation can be restored and then pregnancy can occur. Prolactin, when abnormally elevated, may interfere with ovulation and can cause miscarriage. Some women have symptoms (milky breast discharge), but others do not.

Follicle-stimulating hormone (FSH) along with estradiol is a marker of ovarian reserve. This hormone level is especially important in women who are 35 and older. The FSH level is a rough guide as to a woman's egg quantity and quality. It can predict of how likely a woman will be able to respond to fertility medication in an effort to try to conceive.

In addition, testing for testosterone, DHEAS and 17 hydroxyprogesterone, may be recommended if there is a concern about excess male hormone production interfering with ovulation. This is most commonly seen in women with polycystic ovarian syndrome (PCOS) and late onset adrenal hyperplasia and with the correct treatment ovulation can be restored.

In selected patients with signs of PCOS or obesity, screening for diabetes may be recommended. By checking a fasting glucose and insulin levels or performing a two hour glucose tolerance test, a woman can be screened for diabetes. Egg quality may be adversely affected by elevated insulin levels and, therefore, medication may be recommended to normalize insulin levels. This correction can significantly improve a woman's chances of conceiving, sometimes without the need for fertility medication.

The ultrasound exam is an opportunity to assess the uterus and ovaries in detail. Uterine fibroids, endometriomas and hydrosalpinges, are some of the abnormalities that can be identified with an ultrasound exam. To further assess ovarian reserve, the antral follicle count is checked.