

## PCOS: Establishing a Timely Diagnosis for Women Who are Trying to Conceive

*PCOS is the most common ovulatory disorder affecting fertility, occurring in 10-15% of women of childbearing age.*

### Diagnosing and Identifying PCOS

Given there is no single test to diagnose PCOS, SGF follows the international guidelines called the Rotterdam Criteria, established by the European Society of Human Reproduction and Embryology (ESHRE) and the American Society for Reproductive Medicine (ASRM) that requires two of the following three symptoms to be present. PCOS is a spectrum endocrine disorder, with symptoms ranging from absent to severe:

- **Elevated androgen levels in the blood**, which can manifest as acne on face, chest, or upper back; excessive hair growth in a male pattern; thinning hair or hair loss (alopecia); darkening of skin, especially in creases (rule out androgen secreting tumors and congenital adrenal hyperplasia)
- **Menstrual disturbances**—such as oligo/amenorrhea, which occur in about 85 percent of women with PCOS (rule out thyroid disease and hyperprolactinemia)
- **Polycystic ovaries** on pelvic ultrasound

### Infertility in Women with PCOS is Highly Treatable

For many women with PCOS who are trying to conceive, lifestyle modifications such as weight loss can be enough to resume ovulation and conceive.

Following lifestyle modifications, ovarian stimulation using clomiphene citrate or letrozole is the next step. While there is a place for metformin in the treatment of women with PCOS who are found to have impaired glucose tolerance, pre-diabetes, or diabetes, it is no longer recommended for the sole purpose to regulate a woman's menstrual cycle or induce ovulation.

SGF advises using transvaginal ultrasound monitoring with ovarian stimulation. While some women with PCOS will conceive with ovarian stimulation alone, others may require intrauterine insemination (IUI) or even more advanced care such as in vitro fertilization (IVF).

Research has shown that even with modest weight loss (5-10%) some women will resume ovulation and become pregnant without any further treatment.

Once infertility or PCOS has been determined, a **referral may occur immediately or after three unsuccessful ovarian stimulation cycles**. This improves patient satisfaction and allows the patient to progress to more effective therapies in a timely manner.

The great news is that PCOS patients with infertility are expected to have very high pregnancy rates with the appropriate fertility treatment.

### Recent genetic study may lead to earlier detection and treatment

A first-of-its-kind study using family-based genetic analysis has identified that the gene DENND1A, which is involved in male hormone production, plays a major role in the development of polycystic ovary syndrome (PCOS).

A senior author of the study is Andrea Dunaif, M.D., Chief of the Hilda and J. Lester Gabrilove Division of Endocrinology, Diabetes and Bone Disease at the Icahn School of Medicine at Mount Sinai. "Our findings provide important new insights into the mechanisms by which genetic variation causes PCOS. The rare genetic variants we found may be much better for predicting the condition than the common variants. Further, targeting pathways regulated by this gene could lead to new therapies for the condition."

"This study is really a step in the right direction. We've known that there was some genetic component because you often see PCOS in families, but this is really the first time there's a correlation with a specific gene," explained Tomer Singer, M.D. of SGF's New York City office.

As research commences on identifying exactly how normal functioning of the gene is disrupted, approaches to manipulate the gene may help identify personalized treatment approaches and screening tests for patients. Earlier detection of PCOS may also give women the option to freeze their eggs if they are concerned about future infertility due to the condition.

Source: *The Journal of Clinical Endocrinology & Metabolism*, Volume 104, Issue 9, September 2019, Pages 3835-3850

#### MEDICATION RECOMMENDATION

	CLOMIPHENE CITRATE	LETROZOLE
Cycle 1 days 3-7 or 5-9	50 mg QD	2.5 mg QD
Cycle 2* days 3-7 or 5-9	100 mg QD	5.0 mg QD
Cycle 3* days 3-7 or 5-9	150 mg QD	7.5 mg QD

\*If ovulation has not occurred, confirmed by either no menstrual period at the end of the cycle or a progesterone level under 3 mg/mL on approximately day 21 of the cycle or 1 week after positive ovulation predictor kit.



shady grove fertility

9600 Blackwell Road, 5th Floor  
Rockville, MD 20850

## SHADY GROVE FERTILITY

Refer Your Patients with Confidence

1-888-348-5599



shady grove fertility

### MEDICAL UPDATE

## Referring a Patient with Suspected or Diagnosed PCOS

Physicians can refer patients who are actively trying to conceive at any point whether PCOS is suspected or diagnosed.

If first-line treatments such as clomiphene citrate or letrozole have not been successful after three cycles, a referral is highly recommended. This allows patients to progress to treatment options usually only available with a fertility specialist such as intrauterine insemination (IUI) or in vitro fertilization (IVF). **An early referral will give women more treatment options and a greater chance of success.**



**IN THE US, UP TO 15%** OF WOMEN OF  
CHILD BEARING AGE

**ARE BELIEVED TO BE AFFECTED BY PCOS. THAT'S 5 MILLION WOMEN.**

**PCOS: ESTABLISHING A TIMELY DIAGNOSIS FOR WOMEN WHO ARE TRYING TO CONCEIVE ▶**