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MEDICAL UPDATE

Diagnosing and Treating Women with PCOS

Frequently Asked Questions

Polycystic ovary syndrome (PCOS) is one of the most common causes of ovulatory dysfunction, and it affects nearly 15 percent of reproductive-age women.[1] Over the past several years, treatment recommendations for women with PCOS have changed. As a result, there are many questions about how best to treat women with PCOS who are trying to conceive.

PCOS: A Diagnosis of Exclusion

Unfortunately there is no straightforward diagnostic test to confirm PCOS. As a result, physicians must approach a diagnosis through the presence of symptoms. According to the Rotterdam Criteria, established in 2003 by the European Society of Human Reproduction and Embryology (ESHRE) along with the American Society for Reproductive Medicine (ASRM), a diagnosis of PCOS requires two of the following three symptoms to be present along with the exclusion other causes of those symptoms:

HYPERANDROGENISM: acne, excessive hair growth in a male pattern, or alopecia

MENSTRUAL DISTURBANCES: such as oligo/amenorrhea

POLYCYSTIC APPEARING OVARIES ON ULTRASOUND

Common Physician Questions about Treating PCOS

Is there any value in using letrozole (Femara) in place of clomiphene citrate (Clomid, Serophene)?

Clomiphene citrate functions by blocking the body's ability to "see" and respond to estrogen. As a result, the ovaries respond by recruiting, growing, and ovulating a follicle so that conception can occur. But due to the body's inability to see estrogen, many women experience a thinning of the uterine lining that can ultimately impact the ability for an embryo to implant.

Over the last several years, letrozole has been explored as an alternative to clomiphene citrate. The primary difference between the two relates to how they manipulate the body's response to estrogen. Letrozole lowers the amount of estrogen produced rather than blocking the ability to respond to it. As a result, thinning of the uterine lining is not as severe. **Studies have found that women with PCOS using letrozole experience a greater frequency of ovulation and live births compared with those using clomiphene.**[2] While studies are showing some level of superiority of letrozole over clomiphene citrate for inducing ovulation it is important to note that the use of letrozole for ovulation induction is not FDA approved.

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 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 between days 19 to 21 of the cycle.*

What is the current recommendation for metformin use?

At one point, it was believed that metformin would help to regulate a woman's cycle and induce ovulation. This belief led physicians to start with several months of metformin before moving to other options such as clomiphene citrate or referring them to a fertility specialist. While there is a place for metformin in the overall treatment of women with PCOS, specifically those with an impaired glucose tolerance, it is no longer recommended for the sole purpose to regulate a woman's menstrual cycle or induce ovulation. Other options such as clomiphene citrate or letrozole are more appropriate for ovulation induction.

When is it appropriate to refer a patient with suspected or diagnosed PCOS?

Physicians can refer their 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.

1. Sirmans S, Pate K. Epidemiology, diagnosis, and management of polycystic ovary syndrome. *Clin Epidemiol.* 2014; 6: 1–13. doi: 10.2147/CLEP.S37559
2. Legro R, Brzyski R, Diamond M, et al. Letrozole versus Clomiphene for Infertility in the Polycystic Ovary Syndrome. *N Engl J Med.* 2014; 371: 119-129. doi: 10.1056/NEJMoa1313517

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MEDICAL UPDATE

Helping Women with PCOS Conceive

Polycystic ovary syndrome (PCOS) makes up 85 percent of all ovulatory disorders. One of the greatest challenges with PCOS is not treating the disorder, rather diagnosing it. Currently, there is no single diagnostic test that can be used to positively identify PCOS.

Over the past several years, the recommended treatment for women trying to conceive with PCOS has evolved to offer more efficient and effective options. New options have brought about new questions from the referring physician community about how to diagnose women and help those who are trying to conceive. Inside, we address many of these common questions.

LEARN MORE ABOUT DIAGNOSING AND TREATING PCOS ▶

shady grove fertility
9600 Blackwell Road, 5th Floor
Rockville, MD 20850