

PCOS Cheat Sheet for Doctors

WHAT'S PCOS?

Polycystic Ovary (PCO) is a term used to describe an ultrasound scan that shows a higher than average number of antral follicles in the ovaries. Polycystic Ovary Syndrome (PCOS) is when these extra follicles are associated with excess androgens, or irregular/absent ovulation.

As a result of the irregular cycles and associated hormonal imbalances, many women with PCOS will struggle to achieve pregnancy. They may also have other signs of hormonal imbalance, such as metabolic syndrome or hirsutism.

WHEN SHOULD I REFER A PATIENT?

If your patient has irregular cycles, it's reasonable to refer her.

HOW IS PCOS DIAGNOSED?

1. We look for irregular or absent cycles.
2. We count the number of follicles (Antral Follicle Count) using a transvaginal ultrasound. 15-25 is normal, while over 25 is consistent with polycystic ovaries.
3. We look for excess androgens (hyperandrogenism).
4. We measure Anti Mullerian Hormone (AMH) levels. This is the hormone that ovarian follicles release. If a woman has extra follicles, she will have a much higher AMH level. While no international standards have been set, generally with PCOS we will see levels 4ng/ml or greater. Though the test can be done any day of a woman's cycle, it may be inaccurate if she is taking a hormonal contraceptive at the time.

HOW IS PCOS TREATED?

- Weight loss (reduce BMI by 5-10%)
- Thyroxine, if patient has TSH over 2.5
- Metformin if HbA1c is elevated
- Supplements (antioxidants, CoQ10, myoinositol) for egg quality
- Cycle monitoring to confirm ovulation

WHAT IF THAT DOESN'T WORK?

We can control the patient's cycle with clomiphene and/or letrozole, causing ovulation. We avoid gonadotropins, which put the patient at greater risk of potentially health-endangering multiple pregnancies. This results in pregnancy rates of about 15% per cycle.

WHAT IS LETROZOLE?

Letrozole is an aromatase inhibitor that effectively induces ovulation. It has fewer adverse clinical side effects than clomiphene, while resulting in comparable pregnancy rates. However, fertility treatment is an off-label use and patients must consent appropriately.

AND THE LAST RESORT?

IVF/ICSI. Although costly, this treatment lets us extract, select, fertilize and implant the patient's eggs ourselves. This typically results in excellent pregnancy rates (70% when we have 3 or more blastocysts to choose from, as will usually be the case, and two embryos are transferred) and safe outcomes.

Thanks to Dr. Tom Hannam, Hannam Fertility Centre, 2014 Physicians Update on Assisted Reproductive Technologies for these tips.