

## GP INFORMATION SHEET

# PCOM vs. PCOS



### What's The Difference Between PCOM And PCOS?

#### Polycystic Ovarian Morphology (PCOM)

- Definition:  $\geq 20$  follicles (2-9 mm) in at least one ovary in adults  
This is based on the 2023 International Guidelines that replaced the Rotterdam Criteria (2003) that specified  $\geq 12$  follicles
- Affects around 15% of women

#### Polycystic Ovarian Syndrome (PCOS)

- Definition: People with two of the following 3 findings:
  - Polycystic ovarian morphology on ultrasound
  - Clinical symptoms of hyperandrogenism (e.g. acne and hirsutism) or biochemical evidence of hyperandrogenism (elevated free testosterone)
  - Evidence of ovulatory dysfunction, e.g., cycle length  $< 21$  days,  $> 35$  days or lack of serum progesterone rise

#### Symptoms and Problems of PCOS

- Infrequent and irregular periods
- Acne
- Hirsutism (abnormal growth of facial and body hair)
- Subfertility – frequently related to anovulation
- Endometrial hyperplasia
- Long-term health implications
  - Increased risk of cardiovascular disease
  - More than double the risk of developing type 2 diabetes
  - Three times the risk of endometrial cancer

#### Causes of PCOS

- The underlying cause of PCOS is poorly understood
- Genetics: More common if a family member has PCOS or metabolic syndrome
- Overweight and obesity - Weight gain often unmasks PCOS in women who are pre-disposed

#### Workup for People Presenting with Suspected PCOS

- Menstrual history
- Physical examination including BP, weight, clinical evidence of hyperandrogenism
- Blood tests: total testosterone and free androgen index, consider luteal phase progesterone, follicular phase FSH, LH, oestradiol, progesterone
- Pelvic ultrasound for antral follicle count (ideally transvaginal) and endometrial thickness (hyperplasia)

## Treatment for PCOS-Related Infertility

### Ovulation Induction

In women with PCOS who are not ovulating, first line treatment is ovulation induction.

Most women with PCOS have difficulty falling pregnant because of lack of (or infrequent) ovulation. Ovulation induction or "OI", as the name suggest, improves the frequency and reliability of ovulation.

Letrozole is currently the most widely used method of OI which lowers circulating estrogen levels and in turn increases the pituitary FSH secretion stimulating follicular growth and ovulation.

Other approaches to achieve this are:

- Weight loss (in women who are overweight or obese – 5% weight loss can significantly improve frequency of spontaneous ovulation)
- Clomiphene (works at the level of the pituitary as an estrogen partial antagonist in order to increase FSH production)
- Metformin (to reduce insulin resistance and improve overall metabolic status)
- FSH injections (working directly on follicles in the ovary to stimulate growth)
- Ovarian drilling (at laparoscopy 5-10 small holes are made in each ovary with diathermy – though effective in the short term, this is rarely performed due to the many superior options being available and resulting loss of normal ovarian tissue that occurs)

### IVF

- If ovulation induction for PCOS does not result in pregnancy after several cycles, patients may need to proceed to in vitro fertilisation (IVF). With IVF, the intent is to stimulate many eggs to mature at once.
- Women with PCOS often have excellent results with IVF. They also have an increased risk of developing ovarian hyperstimulation syndrome (OHSS), however this is preventable. At Newlife IVF, we take greater caution to not stimulate too many eggs in women with PCOS.

### Source:

Teede HJ, Tay CT, Laven JJE, Dokras A, Moran LJ, Piltonen TT, Costello MF, Boivin J, Redman LM, Boyle JA, Norman RJ, Mousa A, Joham AE; International PCOS Network. Recommendations from the 2023 international evidence-based guideline for the assessment and management of polycystic ovary syndrome. Eur J Endocrinol. 2023 Aug 2;189(2):G43-G64. doi: 10.1093/ejendo/lvad096. PMID: 37580861.