

COMMUNITY GYNAECOLOGY GUIDELINES

ASSESSMENT AND DIAGNOSIS OF PCOS

HISTORY AND EXAMINATION

- Full gynae history (include family history) with specific questions on cycle length, IMB, acne, hirsutism
- Examination as appropriate including measurement of BMI at each appointment
- Elicit specific patient concerns e.g. hirsutism, amenorrhoea, subfertility to help guide treatment



INVESTIGATIONS

- **TV/TA USS (adults only)**
- **Sex hormone-binding globulin (SHBG)** — normal or low in women with PCOS and provides a measurement of the degree of hyperinsulinaemia.
- **Free androgen index ((100 x total testosterone) ÷ SHBG)** - normal or elevated in PCOS - marker of the amount of physiologically active testosterone present
- **LH** — normal or high in PCOS. High in up to 40% of women with PCOS (usually slim women)
- **Oestradiol** — normal or high in PCOS
- **FSH, prolactin and TSH** — normal in PCOS — done to rule out other causes of oligo/amenorrhoea e.g. premature ovarian failure, hyperprolactinaemia, hypothyroidism etc.
- **Total testosterone** — normal or high in PCOS. If high need to check DHEA, androstenedione and 17 hydroxyprogesterone to rule out congenital adrenal hyperplasia, Cushing's syndrome and androgen-secreting tumours.

WHEN TO REFER TO ENDOCRINOLOGY?

1. **Severe symptoms** — signs of virilisation or rapidly progressing hirsutism
2. **Testosterone level significantly elevated** (> than 5 nmol/l or more than 2 x upper limit of normal range) or abnormal levels of **DHEA, androstenedione or 17 hydroxyprogesterone**



DIAGNOSIS (ADULTS)

Rotterdam consensus criteria (need 2 out of 3):

1. **Polycystic ovaries on scan** (either 12 or more follicles or increased ovarian volume [$> 10 \text{ cm}^3$])
2. **oligo or anovulation**
3. **clinical and/or biochemical signs of hyperandrogenism.**

Women with non-Caucasian ethnicity might need different criteria to diagnose.

DIAGNOSIS (<18 YEARS)

- There is no consensus on the criteria needed to diagnose PCOS in adolescents. Diagnosing PCOS is harder as the diagnostic features used in adults e.g. oligomenorrhoea, acne and PCO morphology on USS can be normal pubertal physiological events that are transient
- Do not diagnose PCOS until > 2 years after menarche and in girls < 18 years - both hyperandrogenism and irregular menstrual cycles are required for a diagnosis of PCOS.

MANAGEMENT OF PCOS

ALL PATIENTS

- Counsel on possible long-term complications including T2DM, CVD, obstructive sleep apnoea and endometrial cancer
- Lifestyle modification, including diet and exercise, should be the first-line treatment in overweight and obese women with PCOS.
- Counsel women that lifestyle modification will decrease the risk of developing health complications and is likely to improve menstrual regularity, decrease androgen levels and increase fertility
- Encourage diabetes testing with OGTT via GP if raised BMI
- Screen for symptoms of anxiety and depression as well as other mental health conditions

PLANNING A PREGNANCY OR CURRENTLY PREGNANT?

YES

- Stop any hormonal treatment
- Preconception counselling (inc high dose folic acid 5mg if obese)
- Refer to fertility team if indicated
- If pregnant will need OGTT

NO

Consider which symptom they are most concerned about and treat each patient holistically according to their concerns as per below

OLIGO/AMENORRHOEA

Oligo- or amenorrhoea is a risk factor for endometrial hyperplasia/carcinoma. Aim for a minimum of 4 periods per year to protect the endometrium.

Investigations (if not already done):

- **TVUSS** - If prolonged amenorrhoea or abnormal PVB to assess ET (ET < 7mm - unlikely hyperplasia)
- **Biopsy +/- hysteroscopy** - If raised ET and consider need for referral to hospital gynae

Treatment options:

- A cyclical progestogen e.g. medroxyprogesterone 10 mg OD for 14/7 every 2-3 months
- CHC (oral, patch or vaginal ring)
- LNG-IUS
- Metformin may be most beneficial in high metabolic risk groups including (BMI > 30 kg/m² , diabetes risk factors, high-risk ethnic groups)- Starting at 500 mg increments 1-2 weekly - max daily dose is 2.5 g in adults
- Inositol (in any form) could be considered in women with PCOS based on individual preferences potential for improvement in metabolic measures, yet with limited clinical benefits including in ovulation/hirsutism/ weight
- POP (Drospirenone- antiandrogenic effect)

HIRSUTISM

- Discuss hair removal methods e.g. shaving, waxing, laser
- CHC (consider dianette – co-cyprindiol)
- Metformin should be considered over inositol for hirsutism and central adiposity

ACNE

- CHC if eligible
- Acne treatment as per dermatology guidelines
- spironolactone at 50 mg for 2 weeks then 100 mg/day- U&E baseline
- Ongoing monitoring is only required if women are >45y of age or have other relevant comorbidities

When to refer to gynaecology

- 1- Fertility concerns or concerns regarding hyperplasia or carcinoma.
- 2- No response to treatment

RESOURCES/PATIENT SUPPORT GROUPS

(www.rcog.org.uk): [Polycystic ovary syndrome: what it means for your long-term health.](http://www.rcog.org.uk)

PCOS Challenge: The National Polycystic Ovary Syndrome Association (www.pcoschallenge.org & Verity (www.verity-pcos.org.uk))

REFERENCES:

1. Royal College of Obstetricians and Gynaecologists. *Long-term consequences of polycystic ovary syndrome. Green-top Guideline No. 33*. London: RCOG Press; 2014
https://www.rcog.org.uk/globalassets/documents/guidelines/gtg_33.pdf
2. National Institute of Health and Care Excellence. Polycystic Ovary Syndrome. Clinical Knowledge Summary. London: NICE; September 2018
<https://cks.nice.org.uk/polycystic-ovary-syndrome>
3. The Rotterdam ESHRE/ASRM-sponsored PCOS consensus workshop group. Revised 2003 consensus on diagnostic criteria and long-term health risk related to polycystic ovary syndrome (PCOS). *Hum Reprod* 2004;19:41–7.
https://elearning.rcog.org.uk/sites/default/files/Causes%20and%20management%20of%20amenorrhoea/eshre_0.pdf
4. Balen AH. Polycystic ovary syndrome (PCOS). *The Obstetrician and Gynaecologist* 2017; 17:119–129.
<https://obgyn.onlinelibrary.wiley.com/doi/epdf/10.1111/tog.12345>
5. Barts Health NHS trust. *Evaluation and Management of Polycystic Ovary Syndrome*. Clinical guideline
6. [PCOS-Guideline-Summary-2023.pdf \(monash.edu\)](#)
7. *BMJ* 2023;381:p1114
8. *BMJ* 2023;381:e074349