Assessment and Diagnosis of Polycystic Ovary Syndrome (PCOS)

Polycystic ovary syndrome (PCOS) is a common, heterogeneous disorder affecting 6 to 21% of women worldwide. The global AWARE group is an independent panel of physicians with expert interest in the treatment of androgen excess in women. Formation of the AWARE group and its ongoing work is supported by Bayer AG.

1. ASK

Medical history
- Menstrual irregularity (intervals <21 days or >35 days; prolonged or heavy menstrual bleeding)
- Ovulatory dysfunction (irregular intervals, intervals of <21 or >35 days; or delayed ovulation)
- Previous treatment and/or self care (e.g. shaving, waxing)

Regular waxing or shaving can disguise the severity of hyperandrogenic skin symptoms such as hirsutism.

2. ASSESS

Hyperandrogenic manifestations
- Clinical presence of skin symptoms such as acne, hirsutism, seborrhea and alopecia
- Biochemical evidence of elevated androgens

Physical examination
- Body mass index (BMI)
- Waist/height ratio (WHR)
- Blood pressure (BP)

3. CONSIDER

Psychosocial impact
- Emotional wellbeing
- Quality of life

Long term health risks
- Androgen excess, particularly if there is accompanying anovulation or PCOS may lead to increased risk of metabolic syndrome and endometrial hyperplasia or malignancy if left untreated

Table adapted from Lizneva D et al, 2016

Parameter | Phenotype | A | B | C | D
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Hyperandrogenism (HA) | + + + –
Ovulatory dysfunction (OD) | + + – +
Polycystic ovary morphology (PCOM) | – + + +

4. TEST

Investigations to confirm a diagnosis of PCOS remain the same regardless of phenotype

Please note: Use of these laboratory tests will be guided by local protocols and/or cost constraints according to clinical practice and availability.

- Ultrasound
  To confirm PCOS
  NB absence of ovarian morphology does not exclude diagnosis
- Serum 17-hydroxyprogesterone (OHP)
  To exclude other hyperandrogenic conditions
  e.g. thyroid disease, non-classical congenital adrenal hyperplasia, adrenal or ovarian tumors, acromegaly, Cushing syndrome and late-onset androgenital syndrome (AGS)
- Serum or urine human chorionic gonadotrophin (HCG)
  To evaluate amenorrhea and exclude pregnancy
- Anti-Mullerian hormone (AMH) 4h urinary free cortisol
  Other tests which may be helpful
  e.g. AMH has an emerging role in predicting Ovarian Hyperstimulation Syndrome (OHSS) in IVF cycles or to consider the presence of granulose cell tumors
- Sex hormone binding globulin (SHBG)
- Serum free IGF-1
- Complete lipid profile, including total cholesterol, low-density lipoprotein (LDL)-cholesterol, non-high-density lipoprotein (HDL)-cholesterol, HDL-cholesterol and triglycerides
- Oral glucose tolerance test (OGTT)
- Blood pressure

* When assessed using the Rotterdam criteria
# Essentials for safe and effective prescribing in the management of PCOS

## 5. EXPLAIN

### What to explain?
- The importance of lifestyle management including regular exercise and healthy eating behaviour
- The pathophysiology of symptoms in simple, patient-focused language
- How the treatments work
- The need for a follow-up plan

### Why?
- Lifestyle modification is important for all women affected by PCOS: moderate weight loss (5 to 10%) in women with PCOS can improve insulin resistance as well as androgenic and reproductive outcomes
- Increasing patient knowledge helps to empower patients
- Explaining how treatments work can help patients understand the importance of correct and consistent treatment, especially in long-term conditions
- Skin symptoms such as acne and hirsutism often require long-term treatment
- PCOS is associated with long-term metabolic and reproductive health risks

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## 6. MANAGE

### What to manage?
- Symptoms of clinical hyperandrogenism i.e. hirsutism, acne, seborrhea or alopecia
- Symptoms of biochemical hyperandrogenism such as endometrial or metabolic complications

#### Why?
- Effective treatment can help to improve the significant quality of life and psychological impairment associated with hyperandrogenic skin symptoms
- To help reduce the risk of both reproductive and metabolic/cardiovascular consequences associated with long-term androgen excess disorders

#### What to use established treatment combinations for androgen excess and follow clinical guidelines and relevant criteria for use.
- Patients must be carefully screened before using any estrogen/progestogen combinations, and pregnancy must be excluded
- Further guidance on contraindications is available in the 'WHO MEC for contraceptive use'

### Why?
- EE in combination with progestogens with antiandrogenic potential (CPA, CMA, DNG or DRSP) are preferred treatment options
- CPA combined with EE is indicated for the treatment of moderate to severe acne related to androgen-sensitivity (with or without seborrhea) and/or hirsutism, in women of reproductive age

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## 7. REFER IF

### What to refer?
- Abnormal findings (ovaries or endometrium) with clinical ultrasound
- Evidence of metabolic disorders

#### Why?
- Further imaging procedures may be needed
- For effective assessment and treatment

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