

THE PATHCARE NEWS

PMOS: THE NEW NAME FOR PCOS AND WHAT IT MEANS FOR LABORATORY ASSESSMENT

What is PMOS?

Polyendocrine Metabolic Ovarian Syndrome (PMOS), formerly known as Polycystic Ovary Syndrome (PCOS), is one of the most common endocrine disorders affecting women of reproductive age. The new name reflects the endocrine, metabolic, and ovarian abnormalities that underpin the condition.

Why the name change?

The term PCOS is increasingly recognized as misleading because pathological ovarian cysts are not a defining feature. PMOS better reflects the multisystem endocrine and metabolic nature of the disorder.

How common is PMOS?

PMOS affects approximately 10–13% of women of reproductive age and remains substantially underdiagnosed.

Clinical features

- Irregular or absent menstrual cycles
- Infertility or subfertility
- Hirsutism
- Acne
- Androgenic alopecia
- Obesity and metabolic dysfunction
- Dysglycaemia, dyslipidaemia and hypertension

Clinical Pearls

- PMOS is a multisystem endocrine and metabolic disorder, not simply an ovarian disorder
- PMOS may occur in women with normal BMI; obesity is not required for diagnosis
- AMH may be used as an alternative to ultrasound for assessment of ovarian morphology in adults
- AMH and ultrasound are not recommended investigations in adolescents
- LCMS-based testosterone measurement is preferred in women, but oral contraceptives should be withdrawn for at least three months prior
- Normal testosterone concentration does not exclude hyperandrogenism; DHEAS and androstenedione may be informative
- Metabolic risk assessment is a key component of patient management.

Recommended PMOS Laboratory Work-up

Exclusion testing

- β -hCG
- TSH
- Prolactin
- FSH $\pm$ oestradiol, where primary ovarian insufficiency is clinically relevant
- 17-hydroxyprogesterone + 11-deoxycortisol

Diagnostic inclusion/assessment testing

- Total testosterone (LCMS-method preferred) with SHBG and Free Androgen Index (FAI)
- DHEAS and androstenedione, particularly if testosterone/FAI are not elevated but clinical suspicion remains
- AMH if ovarian morphology assessment is required in adults, and ultrasound is not being used

Metabolic risk assessment

- HbA1c and/or fasting glucose
- Lipid profile

PathCare value-added offering

PathCare now offers two streamlined test profiles to support the laboratory assessment of adult women with suspected PMOS:

Hyperandrogenaemia panel

- Testosterone (LC-MS/MS-based)
- Sex hormone-binding globulin (SHBG), with calculated free androgen index (FAI)
- DHEAS (LC-MS/MS-based)
- Androstenedione (LC-MS/MS-based)

Sample requirement: 2 $\times$ SST (yellow-top) serum tubes

Approximate total price (fund-dependent): R1 100

PMOS panel

- Hyperandrogenaemia panel
- Anti-Müllerian hormone (AMH)

Sample requirement: 2 $\times$ SST (yellow-top) serum tubes

Approximate total price (fund-dependent): R2 000

These convenient profiles combine the key biochemical tests into a single request, simplifying test selection and supporting a focused, cost-conscious investigation.

Chemical Pathologists, PathCare, July 2026

Reference:

Teede HJ, *et al.* Polyendocrine metabolic ovarian syndrome, the new name for polycystic ovary syndrome: a multistep global consensus process. *Lancet*. 2026;407(10545):2329-2339. doi:10.1016/S0140-6736(26)00717-8



PMOS DIAGNOSTIC ALGORITHM SUMMARY

STEP 1



CLINICAL SUSPICION

- 1 Irregular menstrual cycles
- 2 Infertility
- 3 Hirsutism
- 4 Acne
- 5 Alopecia
- 6 Metabolic dysfunction

STEP 2



EXCLUDE MIMICS

- 1 Pregnancy (β -hCG)
- 2 Thyroid dysfunction (TSH)
- 3 Hyperprolactinaemia (Prolactin)
- 4 Primary ovarian insufficiency (FSH $\pm$ Oestradiol)
- 5 Non-classic congenital adrenal hyperplasia (17-hydroxyprogesterone, 11-deoxycortisol)

STEP 3

ASSESS 1) IRREGULAR CYCLES AND 2) HYPERANDROGENISM



1) Irregular cycles
Assess menstrual cycle pattern and ovulatory function based on time post-menarche.

2) Hyperandrogenism
Clinical hyperandrogenism:

- Hirsutism
- Acne
- Alopecia

If absent, biochemical assessment:

- 1 Total testosterone (LC-MS/MS preferred)
- 2 SHBG
- 3 Free Androgen Index (FAI)
- 4 Consider DHEAS
- 5 Consider Androstenedione

In adolescents both irregular cycles and hyperandrogenism required

Not while on hormonal contraception

Only one feature present?
(Irregular cycles OR Hyperandrogenism)

YES

STEP 4



ASSESS OVARIAN MORPHOLOGY

- 1 Pelvic ultrasound OR
- 2 Anti-Müllerian Hormone (AMH)

Use one method only, not both

In adolescents, ultrasound and AMH are NOT recommended

STEP 5

ASSESS METABOLIC RISK



- 1 HbA1c and/or fasting glucose
- 2 Lipid profile
- 3 Blood pressure
- 4 BMI



GLUCOSE



LIPIDS



BLOOD PRESSURE



BMI



INTEGRATE FINDINGS AGAINST CURRENT PMOS DIAGNOSTIC CRITERIA

Confirm PMOS only when criteria are met and mimics excluded; otherwise classify as 'at risk' and arrange follow-up.



Adolescence per WHO = 10–19 years; adolescent criteria are defined by time post-menarche (irregular cycles by years post-menarche; ultrasound/AMH not used until 8 years post-menarche).