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Review of Updates in Risk Factors and the Family Physician Role in Management of Polyendocrine Metabolic Ovarian Syndrome

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ABSTRACT: Polyendocrine metabolic ovarian syndrome (PMOS), formerly known as polycystic ovary syndrome (PCOS), is a complex, lifelong syndrome with a variety of combinations of hyperandrogenism, ovulatory dysfunction and polycystic ovarian morphology. The new name reflects the fact that insulin resistance, cardiometabolic risk, mental health and reproductive health go beyond a fertility consultation. This is a critical review of the recent literature regarding susceptibility, diagnosis, complications, and the part played by family physicians in this field. Evidence for the polygenicity of susceptibility, and for a causal role of excess adiposity in some patients is strongest, and prenatal programming and endocrine disruptors are possible prevention targets that have biological plausibility but have not been established in clinical practice. Diagnosis in adults is based on 2 of 3 features after excluding mimicking disorders, anti-Müllerian hormone can be used for the definition of morphology in selected adults in lieu of ultrasound, and both tests are not suitable for diagnosing adolescents. Risk assessment involves glycaemia, blood pressure, lipid profile, symptoms of sleep disturbance, psychological assessment, and endometrial protection in the presence of amenorrhoea. Family doctors have good opportunities to coordinate the longitudinal, preference-sensitive care: explanation of the diagnosis, addressing weight without stigma, prescribing cycle and androgen treatment, identifying metabolic disease, providing preconception counselling and making a timely referral to fertility or specialist services. If the sole cause of infertility is anovulatory, then letrozole is the preferred first-line pharmacological ovulation-induction agent. The metabolic role of metformin is known, while that for inositol is less clear and needs to be discussed openly, and for glucagon-like peptide-1 receptor agonists is still less, and therefore warrants further discussion. The renaming does not change the diagnostic criteria or indiscriminate testing for licensure. A standardized primary-care pathway can help limit the diagnostic delay and the potential for a "too narrow" focus on ovarian imaging to overlook the syndrome's underlying clinical burden.

BACKGROUND

The condition known as polycystic ovary syndrome (PCOS) was given its new name, the polyendocrine metabolic ovarian syndrome (PMOS) in the international consensus reached in 2026. The change came after a multi-step process which

included both people living with the condition and professional organisations and was supposed to address the incorrect notion that ovarian cysts would be the main pathology, or even required (1). In this review, PMOS will be used as the new clinical syndrome studied under the previous name. This is new terminology, and the evidence base, diagnostics, and studied populations are mostly from PCOS studies. The 2023 international evidence-based guideline is the primary clinical reference for assessment and management, and should be interpreted with the guidelines, not as a new diagnostic system (2).

There is a high prevalence of the syndrome, though diagnostic criteria, sampling, age, and case ascertainment all play a significant role in determining the prevalence. A system review was carried out to collate 35 studies and found a global prevalence of 9.2% overall, but lower estimates if using the National Institutes of Health criteria and higher estimates if using the Rotterdam criteria (3). These combined numbers cannot be blindly used in a local practice as referral samples are biased towards extremes and diagnostic techniques and androgen reference values vary. From a practical standpoint, the family physician should take PMOS as a possibility into account when menstrual disruption, hirsutism, acne, infertility, or metabolic abnormalities are present, but not when they exist alone.

The Rotterdam consensus established a wide adult spectrum, which required the presence of two of three features: oligo- or anovulation, clinical or biochemical hyperandrogenism and polycystic ovarian morphology following other causes have been ruled out (4). The framework includes a number of phenotypes such as a phenotype with no visible androgen excess. In a systematic review, Bozdag et al demonstrated a significant variation in prevalence and proportion of phenotypes depending on the criteria applied (5). Therefore, any apparent increase or decrease in disease prevalence may be due to change in definition rather than an actual epidemic. The term ovarian, as part of PMOS, should be understood as one part of a broader endocrine and metabolic syndrome, rather than a prerequisite for an abnormal scan in all patients.

The syndrome may be triggered in adolescence and continue into reproductive years up to menopause. During that period clinical priorities shift: caution in the diagnostic process during adolescence; contraception, menstrual and dermatologic issues in early adulthood; fertility and pregnancy planning when desired; and continued cardiometabolic care through aging. The family doctor has an ongoing relationship throughout these transitions. That continuity allows for a repeated risk assessment, a review of treatment goals and a discussion of issues that perhaps wouldn't come up in a spot-check gynecology exam. It also offers a venue to explain the diagnosis without the connotation of inevitable infertility, diabetes, or cardiovascular disease.

LITERATURE REVIEW

This is a narrative clinical review based on the international guideline of 2023, the renaming consensus of 2026, randomized trials, large cohort studies, diagnostic accuracy studies and systematic reviews published up to October 2026. It highlights studies that could impact on assessment and/or management in family practice. If there is no randomized evidence, associations are referred to as associations and not causal effects. When interpreting pooled estimates, absolute risk, baseline age, BMI, phenotype and confounding are taken into account. In an attempt to preserve the same terminology as older studies, the term PCOS is retained when referring to the older clinical condition, but PMOS is used when referring to the current clinical condition.

There are some common shortcomings in the literature. Infertility and hyperandrogenism are overrepresented in specialist cohorts; diagnostic criteria have changed; androgen and body composition thresholds are not fully validated in ethnic groups and there are few long-term trials with patient important outcomes. In meta-analyses, often heterogeneous phenotypes and measurements are combined. When a pooled odds ratio is used, a physician could be alerted to a risk without necessarily demanding the same investigation or intervention from all patients. The clinical challenge is to convert into proportionate screening, shared decision making and follow-up from a credible signal.

RISK FACTORS AND PATHOPHYSIOLOGICAL MECHANISMS OF THE DISEASES.

Inherited susceptibility and phenotypic diversity

There is strong familial clustering. However, Vink and colleagues, in a Dutch twin-family study, concluded there was a significant genetic component, but a twin estimate cannot determine which gene or which set of shared environmental factors is involved (6). Several susceptibility loci were found in a large genome-wide meta-analysis and a broadly shared genetic architecture across the various definitions of diagnosis was demonstrated (7). The genetic situation is polygenetic and probabilistic: No clinical genetic test is sufficiently accurate to screen for PMOS routinely, and a family history should

encourage careful history taking, not a clinical red flag. Familial metabolic risk and/or menstrual or androgen manifestations may exist but the individual diagnosis is based on clinical assessment.

Adiposity is linked to inherited susceptibility, and may affect the expression of the syndrome. The Mendelian-randomization analysis, in conjunction with the systematic review, provided support for the role of adiposity from childhood to adulthood on PMOS risk, while the observational analysis revealed higher odds among individuals with overweight, obesity, and central adiposity (8). This is more evidence of a causal relationship than a mere cross-sectional association, but it cannot be claimed that weight is a causal factor in all patients. Obesity does not exclude PMOS and sometimes patients with obesity don't have PMOS. Talking about adiposity as one modifiable influence is preferable because it doesn't leave the false hope that losing weight is the answer to a complex endocrine problem.

Clinical signs vary with ethnicity; they are influenced by performance. There was a systematic review comparing body mass index, central adiposity, insulin resistance and hirsutism between ethnic groups (9). These are trends in population, and not stereotypes for the individual. In reality, the risk associated to the waist may be observed at a lower BMI in certain groups, and clinical hirsutism scoring may be less relevant in groups with more extensive hair removal and/or differences in the characteristics of the hair. The doctor should seek information on previous hair removal, the speed of symptoms changing, and the patient's concerns; and use validated local laboratory ranges for biochemical tests, if available.

INSULIN RESISTANCE AND EXCESS OF ANDROGENS.

Insulin resistance is common, but not a diagnostic criteria. In a study of women with the syndrome, Dunaif and colleagues reported lower insulin stimulated glucose disposal in both obese and non-obese women with the syndrome than in matched controls, which ruled out obesity as the sole cause of the metabolic phenotype (10). The study was physiologic in nature and relatively small, thus it is not to be interpreted as the insulin resistance of all patients being the same. Hyperinsulinaemia may stimulate the production of ovarian androgens and decrease the level of sex hormone binding globulin in the liver, which increases the free androgen level. Dunaif and Graf conducted an experimental infusion study, which was supportive of a direct action of insulin on gonadal steroid metabolism under the conditions studied (11). Androgen excess can affect the distribution of adipose tissue, which in turn can cause insulin sensitivity to become more complex; on the other hand, excess insulin can exacerbate androgenic symptoms.

Defects in neuroendocrine signaling, follicular arrest and changes in anti-Müllerian hormone production lead to ovulatory dysfunction. Several models also involve prenatal androgen exposure and transgenerational effects. Experimental studies indicated developmental mechanisms, and a nationally representative sample and follow-up study showed that daughters of mothers with PCOS were more likely to be diagnosed with PCOS (12). Without further data from humans, it is impossible to separate genes, pregnancy environment, family context, and ascertainment. The results are of scientific interest, but not enough to warrant prenatal hormone testing or routine prenatal labelling of daughters.

There has been interest in EDCs in the environment. In a systematic review of bisphenols, parabens and triclosan, many of the studies reviewed that reported increased levels of bisphenol A in women with PCOS were observational studies which were vulnerable to reverse causation, exposure-measurement error, and confounding (13). A family doctor may provide general environmental health suggestions without making avoidance of a specific chemical a proven PMOS prevention or treatment. Mechanistic plausibility should drive research, not supersede outcome evidence, for hypotheses regarding inflammation, microbiome composition, and sleep.

A key reminder to the weight obsessed is that metabolic disturbance also can happen in non-obese patients. In a systematic review that looked at non-obese women with PCOS, insulin resistance relative to comparisons was found to be increased, but methods used were heterogeneous (14). On the other hand, an elevated BMI does not signify insulin resistance to an individual. BMI is a good indicator of certain risks and treatment eligibility, but is not a good indicator of blood pressure or a good indicator of glycaemic testing directly. Irregular periods plus hyperandrogenism in a normal weight woman should be treated with the same diagnostic care and risk analysis as a higher weight woman.

The known and the unknown

The most important clinically relevant risk-factor findings are that inherited predisposition plays a role, adiposity may contribute to risk causally and exacerbate symptoms in a subset, and insulin resistance can exist without obesity. Clinically, there is ethnic variation and age-related changes. Possible causative agents such as prenatal and environmental exposures have

not been established and have yet to be proven to prevent. The hierarchy is important because patients are likely to be exposed to statements that one particular food, supplement, chemical or genetic variation is the sole culprit. This careful account must recognize the patient's experience and demonstrate why personal risk reduction is more defensible than a single-cause explanation.

DIAGNOSIS IN PRIMARY CARE:

Adult diagnostic assessment:

Diagnosis starts with patient's reason for consultation and chronology. Record cycle length and cycle regularity, pregnancy potential, hormonal contraceptive use, acne or terminal hair growth, hair loss on the scalp, weight gain, drug exposures, sleep problems, and desired fertility. Check BP, BMI and, if acceptable to the patient, waist circumference; assess acne, alopecia and hirsutism, including hair-removal practices. When the onset of hyperandrogenism or virilization is severe, such as voice deepening or clitoromegaly, the child should be evaluated for an androgen-secreting lesion or another disorder, and should not be routinely diagnosed with PMOS (2).

Two of three criteria are still used for the diagnostic of the adult: ovulatory dysfunction, hyperandrogenism, and polycystic ovarian morphology. If irregular cycles and hyperandrogenism are both present, then no ovarian imaging or anti-Müllerian hormone (AMH) is required to establish the diagnosis (2). If relevant, the physician should rule out pregnancy, and consider thyroid disease, hyperprolactinaemia and non-classic congenital adrenal hyperplasia; testing for Cushing syndrome or an androgen-secreting tumour is based on the clinical picture. In some patients, a prolactin or thyroid result will only account for part of the presentation, and this should not stop a presentation being reviewed. This diagnosis may be documented with the criteria satisfied and the alternative diagnoses eliminated, thereby making the care of the patient safer than a simple acronym in the problem list. Biochemical hyperandrogenism is best assessed with total and free testosterone, using accurate assays and appropriate reference intervals. A diagnostic meta-analysis found that calculated free testosterone, total testosterone, and the free androgen index have differing sensitivity and specificity, with liquid chromatography–tandem mass spectrometry improving measurement performance relative to direct immunoassays (15). Oral contraceptives increase sex hormone-binding globulin and suppress androgen production, complicating interpretation. If biochemical confirmation is essential in someone using a combined oral contraceptive, guideline-directed withdrawal and alternative contraception may be required; a routine “normal” testosterone result during treatment should not erase a convincing untreated history (2).

AMH can be used as an alternative to ultrasound to define polycystic ovarian morphology in adults within the diagnostic algorithm, not as a stand-alone screening test or an additional third test after ultrasound. A systematic review informing the guideline pooled adult sensitivity at about 0.79 and specificity at about 0.87 for AMH-based diagnosis, with substantial between-study heterogeneity (16). Values depend on assay, age, body mass index, and hormonal contraception; there is no universal cutoff that can be transferred uncritically between laboratories. Ultrasound remains useful when another pelvic pathology is suspected, but follicle counts alone should not dominate a consultation about menstrual, metabolic, or psychological health.

Adolescents and diagnostic uncertainty:

Adolescent diagnosis requires particular restraint because irregular cycles and multifollicular ovaries can be normal soon after menarche. The 2025 adolescent-specific international recommendations require both persistent menstrual irregularity defined by time since menarche and clinical or biochemical hyperandrogenism after exclusion of mimics; ultrasound and AMH should not be used to diagnose adolescents (17). A young person with one feature can be considered “at risk,” offered symptom treatment, and reassessed over time. This avoids both premature lifelong labeling and dismissal of distressing symptoms. The family physician should plan a transition to adult care and repeat the diagnostic assessment when maturity allows, rather than leaving an ambiguous label indefinitely.

Phenotype labels may help research but have limits in an individual consultation. A systematic review comparing referral and unselected populations found that phenotype and obesity distributions differ by sampling frame, illustrating referral bias (18). The absence of hirsutism does not remove metabolic concerns, and the presence of ultrasound morphology does not by itself predict infertility. A written explanation can state precisely which criteria apply, which symptoms are being treated, and what monitoring is planned. That is more useful to a patient than a rigid phenotypic code without clinical context.

Glycaemic and baseline risk assessment:

Assess BP and lipids profile at diagnosis, provide glycaemic test. The 2023 guideline suggests that the oral glucose tolerance test (OGTT) of 75 g is the most likely test to be accurate in all categories of BMI, even before pregnancy or fertility treatment, if this is not possible then either fasting glucose or glycated haemoglobin can be considered, but this would be less sensitive (2). In the included studies (19) a threshold of 6.5% HbA1c had a sensitivity of approximately 50% in detecting cases of OGTT defined diabetes in women with PCOS in a diagnostic-accuracy meta-analysis. Even if this doesn't mean that HbA1c has no role in standard, long-term diabetes management these data suggest that it should not be used as a primary screening tool if initial detection of dysglycaemia is important. The physician needs to inform the patient about what to expect to be done during the OGTT and should schedule additional testing at a time based on the baseline result, age, weight, family history, and other risks, and not at an interval based on a single normal reading.

The long-term health risks and their interpretation:

Cardiovascular disease, dyslipidemia and diabetes:

Women with PCOS are at increased risk of developing diabetes, particularly if they are overweight or have high levels of androgens. It was observed that the long-term burden of cardiometabolic disease was higher for diabetes and hypertension, although there was a variation in age, body size, and study design in a systematic review (20). In another meta-analysis of lipid levels, an average increase in triglycerides and low-density lipoprotein cholesterol, and a decrease in high-density lipoprotein cholesterol, were observed in women with PCOS (21). These are some of the reasons to assess real-world risk factors don't assume all patients should be treated medically. Diabetes, dyslipidaemia and hypertension will be managed by the family physician in accordance with primary care guidelines, taking into account a woman's intentions to become pregnant when deciding on medication that may have a risk to the fetus.

The evidence has increased in strength for clinical cardiovascular events, but it is mostly observational. The odds ratio for composite cardiovascular disease was 1.68; there was considerable heterogeneity (1.01–3.12) among the 20 studies in a guideline-linked systematic review of over a million women (22). The relation of cardiovascular mortality was not as clear. An increased relative risk in a young population may translate to a low absolute risk in the short term, and there are differences between study populations regarding obesity and smoking. As such, PMOS should encourage systematic evaluation and management of routine risk factors, rather than assuming that all young patients have either developed or acquired cardiovascular disease. Repeated assessment over decades is important since it might underestimate lifetime burden of risk calculators when used in young adults.

Slumber, liver, and endometrial health:

In a guidance linked systematic review, women with PCOS are at increased risk for OSA, however body mass index (BMI) and ascertainment contribute to the variation (23). Check for loud snoring, observed apneas, unrefreshing sleep, and daytime sleepiness particularly in the presence of sleepiness, hypertension or obesity. If a patient has symptoms, a sleep pathway should be used to evaluate the patient, and screening should not be considered as the same as performing polysomnography on all patients with PMOS. Bad sleep can also negatively affect a person's mood, ability to regulate appetite, and ability to adhere to a treatment regimen.

Another related co-morbidity is metabolic dysfunction-associated steatotic liver disease (previously commonly referred to as non-alcoholic fatty liver disease). The meta-analysis revealed increased odds for fatty liver in women with PCOS, but noted that it was unclear if there was high heterogeneity or publication bias (24). A role for universal liver imaging or universal fibrosis testing for the use of PMOS has not yet been confirmed. In primary care assess liver enzymes/ metabolic risk (based on local liver pathways) and provide diabetes, weight-related risk and alcohol history as appropriate. Association and screening recommendation are two different concepts; avoiding unnecessary investigations and maintaining clinical vigilance.

Chronic anovulation may lead to the unopposed estrogenic effect on the endometrium. A meta-analysis found an association with a higher risk of endometrial cancer in women with PCOS, but this was confounded by age and obesity and observational study design (25). Routine screening of the uterus without symptoms for a young patient (2) does not recommend to make screening of the uterus; the absolute risk of cancer in young patient remains low. However, chronic amenorrhoea should be addressed to protect the endometrium, typically with a combined hormonal contraceptive, progestin therapy or levonorgestrel

intrauterine system, depending on the contraceptive needs and contraindications. Abnormal bleeding that occurs in unexpected and/or unending amounts or that has other risk factors should be evaluated and not reflexly attributed to PMOS.

Psychological health during pregnancy:

Pregnancy is not a cure for the syndrome, it's a transition state. In a systematic review and meta-analysis of 104 studies and 106,690 pregnancies, women with PCOS had increased odds of miscarriage, gestational diabetes, gestational hypertension, pre-eclampsia, and cesarean delivery; some of these associations remained after matching for age and body-mass (26). This information can support preconception assessment and communication of the diagnosis to the antenatal teams. It's not to indicate that an individual pregnancy will be 'complicated'. Prior to conception, assess glycaemic status, blood pressure, medications, the health of the woman, weight, folic acid, smoking, alcohol, and fertility factors; post-conception, coordinate early pregnancy and gestational diabetes plan with obstetric care.

This is the clinical reality of the syndrome the psychological burden. Much of the literature on adolescents and young women with PCOS has been conducted in adolescents and young women and women with PCOS were more likely to report depression and anxiety symptoms in a meta-analysis (27). One other meta-analysis revealed greater odds for disordered-eating scores and eating-disorder diagnosis, but the studies in that meta-analysis were comparatively small in size (28). The Androgen Excess–PCOS Society position statement has long put a special focus on prioritizing attention to depression, anxiety, quality of life and disordered eating (29). When evaluating mood, anxiety, eating patterns, body image, and the impact of hair/skin symptoms on daily functioning, ask directly about these areas in family practice. Screening should result in a pathway to response: psychological therapy, treatment for a diagnosed disorder, review of weight-related language, and coordination with dietetic care if appropriate. A weight loss recommendation may be detrimental if it does not take into account binge eating or a history of restriction.

The diagnostic experience itself can influence care. Gibson-Helm and colleagues linked delayed diagnosis and poor information to dissatisfaction among women with PCOS in an international survey (30). A community survey found that the way a diagnosis was communicated related to later body esteem and quality of life (31).

These observational findings cannot prove that one phrase causes a long-term psychological outcome, but they justify a better consultation: explain that ovarian “cysts” are not required, ask which symptoms matter most, avoid predictions of inevitable infertility, and provide a concise written plan. The newer name offers an opportunity to correct an old misunderstanding if the physician also makes the practical implications clear.

A risk framework for longitudinal care:

The burden of PMOS is best understood as several overlapping trajectories rather than one uniform prognosis. A person with prominent hirsutism and predictable ovulation may chiefly need dermatologic support and periodic metabolic review. Another person with long gaps between periods may need endometrial protection and fertility planning even without obesity. A third may present because of prediabetes or sleep symptoms and only later disclose menstrual changes. The physician's first task is to identify which problems are present now; the second is to look for silent risks at reasonable intervals; the third is to revisit goals when circumstances change. This approach reduces the chance that treatment of a visible symptom conceals an untreated metabolic or psychological concern.

The same principle applies to uncertainty. Relative risks from meta-analyses are population estimates and often cannot be translated into an individual's absolute probability without age, baseline risk, and local disease rates. When discussing an association with cardiovascular events, cancer, or pregnancy complications, the clinician should state what is known, what can be modified, and what will be monitored. Excessively alarming counseling may produce avoidance of care; falsely reassuring counseling may miss a chance for prevention. A collaborative follow-up plan is preferable to an exhaustive one-time investigation that is never reviewed.

Table 1. Evidence relevant to risk assessment in PMOS

Domain	Evidence signal	Family practice response	Key limit
Susceptibility	Polygenic background; adiposity contributes to risk (6–8)	Take family and weight history without deterministic labeling	No routine predictive genetic test
Glucose and lipids	Higher dysglycaemia and adverse lipids (19–21)	OGTT when feasible; baseline lipid profile	Risk varies by age, phenotype, and body size
Cardiovascular	Higher observed event rates (22)	Treat measured standard risk factors	Association is heterogeneous
Sleep and liver	OSA and steatotic liver associations (23,24)	Symptom- and risk-directed evaluation	Universal testing is unproven
Endometrium	Higher observed cancer odds (25)	Protect endometrium; investigate abnormal bleeding	Low absolute risk in younger patients
Pregnancy	Higher observed obstetric complications (26)	Preconception assessment and antenatal handover	Individual outcomes remain variable
Mental health	More depression, anxiety, disordered eating (27–29)	Ask, screen, treat or refer	Avoid weight-stigmatizing care

MANAGEMENT ACCORDING TO THE DOMINANT CLINICAL PROBLEM:

Lifestyle care without weight stigma:

First-line foundations across phenotypes include healthy eating, physical activity, quitting smoking, good sleep habits, and attention to emotional wellbeing. Even if weight loss isn't a goal, lifestyle support is recommended in the international guideline, since health benefits may be obtained regardless of weight loss (2). Much of the evidence was rated as low quality and there was a considerable variance in the design of the interventions and reporting of outcomes in the randomized lifestyle evidence scoping review (32). This should help dispel the notion that there is one specific diet or exercise regimen that is all the racket! The consultation may instead set an achievable plan: frequent meals to patient's preferences and culture; activity to be maintained; resistance exercises (if possible); adequate sleep – and a follow up measure: energy, cycle pattern, blood pressure, glycaemia. The patient who is in need of food, care, pain management, or depression management could require a different plan than the patient who has plenty of time and resources.

Evidence is particularly lacking for adolescents and young adults. Of the 13 randomized trials (789 participants) reviewed as a group, no meaningful pooled analysis could be conducted due to heterogeneity in interventions. That restriction calls for flexible, developmentally appropriate counselling instead of a one-size-fits-all approach. Discuss and explore school context, activity enjoyed and if restrictive eating or concerns about body size are present. When facing high risk for eating disorders, a weight neutral health goal can be more a positive way to think about it. When a patient asks you to assist with weight loss, it is important to talk with them about what is and is not realistic, not assigning moral meaning to weight loss, and providing a structured support instead of the same advice to "try harder."

The physiological basis for lifestyle care is good but adherence is not easy and trial endpoints are frequently surrogate measures. Unfortunately, mild improvements in exercise and food make a difference for cardiovascular health, regardless of whether ovulation returns to normal. The plan can be revisited in brief, common visits by a family doctor rather than as a condition of successful symptom management. No one should have to lose weight before getting contraceptive, hirsutism treatment, psychological help, or an assessment of infertility. This is especially significant because this can lead to increased distress and increased duration of time the endometrium is exposed to anovulatory cycles with delayed treatment.

TREATMENT USING METFORMIN AND GLYCAEMIA:

Metformin is indicated when metabolic risk is more important, such as a higher BMI, impaired glucose tolerance or glycaemic control. A systematic review of randomized trials demonstrated improvement in a number of metabolic and androgen parameters compared with placebo and small studies and variable results (34). In 2023, metformin is recommended to be the main treatment of choice for anthropometric and metabolic outcomes, with consideration in adults with PMOS, particularly when BMI is ≥ 25 kg/m², and in lower weight adults with metabolic issues, although there is less evidence in this group (2). It should not be sold as a panacea and improvements in an insulin measure should not be equated with prevention of a future cardiovascular event.

Treatment is always started at a low dose with food and then titrated up, based on indication and tolerance. Gastrointestinal effects are common; an extended-release product may be helpful. Renal function and pregnancy plans and contraindications should be assessed as normal metformin practice and long-term use may merit consideration for vitamin B12 status, particularly in the presence of symptoms or risk factors for B12 deficiency (2). When diabetes or prediabetes is present, management should be within the context of the diabetes or prediabetes glycaemic pathway and not just PMOS as a treatment framework. Blood pressure, lipids, sleep, and mental health should not be overlooked when considering treatment with metformin, but should be included in lifestyle support.

Menstrual control and contraception, androgens and symptoms.

A combined oral contraceptive pill may be used for irregular periods, clinical hyperandrogenism and contraception if the patient doesn't want to conceive. For combined pills and metformin therapy, a guideline linked systematic review showed that the choice of treatment will depend on the desired effect: pills work well for the menstrual symptoms and androgen symptoms, while metformin has more direct metabolic indications (35). Review standard contraindications to estrogen, blood pressure, migraine with aura, history of venous thromboembolism, smoking and medication interactions prior to prescribing. The lowest dose of estrogen that is effective is preferred, and a preparation with an acceptable risk is preferred. If a combined pill is not to be recommended, cyclic oral progestins or levonorgestrel intrauterine system will protect the endometrium, while dermatologic and contraceptive requirements will be satisfied separately.

There is no comparative evidence supporting the use of a higher risk pill when there is an antiandrogenic label. The systematic review study indicated that some androgen effects could be seen with the use of ethinylestradiol/cyproterone acetate, but emphasised the greater risk of venous thrombosis that prevents it from being used routinely as first line of choice (36). The clinician should discuss with the patient what he or she is seeking, i.e., better bleeding control, acne solution, control of facial hair, contraception, or any combination of these and tell the patient that the hair is slow to be visible, as the existing follicles will produce terminal hair. Cosmetic hair removal, laser treatment, and topical ways of reducing testosterone can be as vital to quality of life as a lab decrease in testosterone.

If a combined pill has failed to control the hirsutism sufficiently or if it cannot be tolerated, an antiandrogen may be warranted after a proper trial; however, as with any pill, effective contraception is necessary due to potential fetal effects. For the 2023 guideline, a systematic review was conducted on antiandrogens such as spironolactone, which found limited and heterogeneous evidence for benefits and safety (37). Spironolactone is a drug widely used in clinical practice, and the dosage, renal function, potassium risk and drug interactions must be examined individually. Antiandrogens should not be prescribed for virilization until cause is determined in the case of rapidly progressive virilization. A cosmetic consideration or a lab androgen level should not be ignored – a combination of both should be treated.

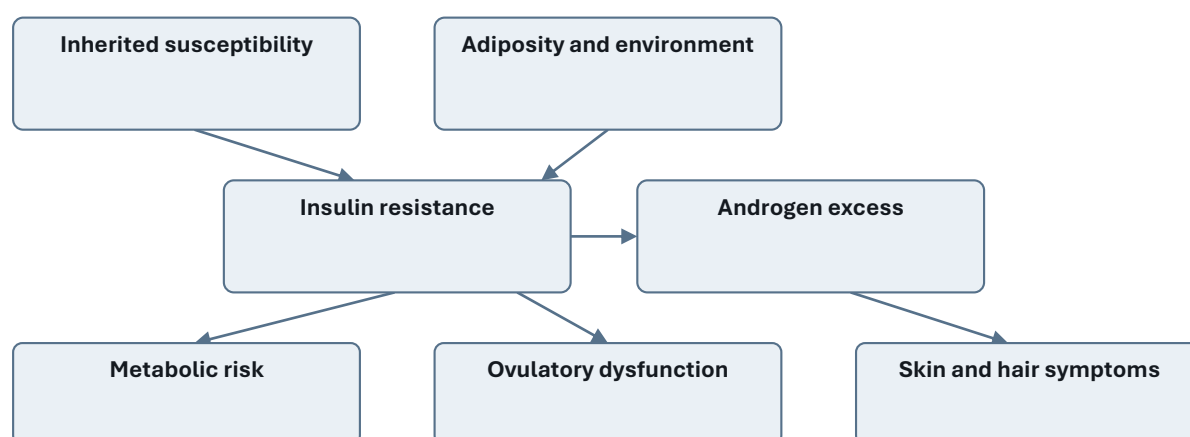
Supplements, obesity pharmacotherapy, and surgery:

Inositol is widely marketed for PMOS. A systematic review and meta-analysis informing the 2023 guideline found possible benefits for some metabolic measures and uncertain or absent effects for many reproductive and patient-important outcomes (38). Because preparations, doses, and commercial quality vary, the family physician should discuss it as an optional intervention with limited evidence, not a substitute for established care. A patient already taking it should be invited to describe perceived benefit, cost, adverse effects, and whether it has delayed other needed treatment. The same standard should be applied to other supplements: plausible biochemical mechanisms do not establish live-birth benefit, diabetes prevention, or durable symptom control.

Glucagon-like peptide-1 receptor agonists may be relevant when an adult also meets ordinary indications for obesity treatment. A recent systematic review of randomized trials found modest short-term reductions in body mass index when these drugs were added to other care but insufficient evidence for several PMOS-specific outcomes, including hirsutism, menstrual regularity, psychological health, and long-term safety in this population (39). Prescribing should follow local obesity guidance, incorporate adverse-effect counseling and contraception, and account for the possibility of increased fertility as weight and ovulation change. Evidence from weight-loss trials in PMOS should not be extrapolated to a claim that these drugs prevent cardiovascular events specifically in PMOS or replace ovulation-induction therapy when fertility is the immediate goal.

Bariatric surgery can be considered for patients who meet established obesity-surgery criteria, with PMOS treated as one aspect of the overall metabolic and reproductive picture. A systematic review found potential anthropometric, metabolic, and reproductive improvements after surgery, but judged comparative and pregnancy-outcome evidence limited and at high risk of bias (40). The family physician's role includes preoperative comorbidity assessment, discussion of future pregnancy timing and nutrition, and long-term postoperative follow-up. Surgery should not be described as a proven fertility cure. If a patient is trying to conceive, the timing of surgery, recommended delay before pregnancy, and micronutrient monitoring require specialist collaboration.

Figure (1): Interacting pathways in PMOS. Conceptual synthesis; arrows indicate plausible influence, not a deterministic causal sequence.



Infertility and preconception care

PMOS is not the only indication that the cause of anovulatory infertility is PMOS. Record the time of the attempt to conceive, ages to become pregnant, intercourse history, tubal history, uterine history, exposure to medications and other endocrine issues. A normal or polycystic appearance scan is not an alternative to this couple-based assessment. Letrozole is first line for pharmacological ovulation induction where anovulation is the sole cause of infertility, according to the international guideline (2). Legro and colleagues also found in a multicenter randomized trial, that women with PCOS who were eligible for treatment who received letrozole had more cumulative live births than those who received clomiphene up to 5 cycles (41). This trial offers patient-important evidence, but may need to be taken into account in the context of eligibility criteria and monitoring.

Because of the availability of letrozole and the fact that it is the most effective fertility treatment, the use of metformin as the treatment of choice should be avoided. Live birth rates were 22.5%, 7.2%, and 26.8% in clomiphene, metformin, and combination treatments, respectively, and clomiphene was highest compared to metformin (42). The results from another recent systematic review and meta-analysis also supported letrozole's superiority over clomiphene for induction of ovulation, clinical pregnancy and live birth (43). Comparisons are not a reflection of the lack of role for metformin, as access and combination therapies may influence individual plans, as is metabolic indication. A metabolic benefit must be differentiated from live birth. Ovulation induction should be given with proper counselling and monitoring and failed induction should be repeated only after reassessment.

Preconception care is a tangible contribution by family medicine. Take a history of glycaemic status – if possible, use an OGTT; take a BP; review vaccinations and medication; discuss smoking and alcohol; consider folic acid – as per local guidance for pregnancy. Inquire regarding sleep, mood and prior pregnancy complications. Infertility patients should be referred as early as necessary when age, length of time, male factor issues, tubal disease or failure of initial treatment would be detrimental. The addition of PMOS to the handover should be considered since more than one in ten women have a higher risk of developing gestational diabetes and hypertension related complications are reported if they are pregnant (26). Counselling should represent a greater likelihood rather than certainty, and not state that a pregnancy is unsafe just because of the diagnosis.

The goal is to consider mental health and symptom priorities that patients may have. Self-esteem, relationships and sexual wellbeing can be affected by the dermatologic, reproductive and metabolic implications of PMOS. Patients may be concerned about infertility prior to the first attempt at pregnancy, or they might have been told that weight is the only reason for all their symptoms. Introduce a non-threatening question, e.g. what part of the condition is most bothersome at this time, and ask if the patient has revealed any symptoms that were not brought up by themselves. A quick-screening tool for depression/anxiety may be helpful, and would need to be followed by conversation and intervention if positive. If there is a concern for binge eating, purging, extreme weight loss or significant body-image concerns, modify weight counseling and refer to mental-health and eating-disorder resources. These steps have been put in place to implement the guideline, which focuses on psychological aspects and quality of life as a part of care, not as an add-on to reproductive care (2,29).

Patient preferences also change. A combined pill may be desired when contraception is important, but not desired when pregnancy is wanted; a patient who values acne control may accept a delay in the response, if that's the only way to provide a safer preparation; another may value fewer visits than a slight difference in laboratory results. Shared decision making should involve common adverse effects, time to benefit and what success will look like. Having a followup date can help keep a treatment from becoming "routine. If symptoms don't go away after a reasonable trial, revisit the diagnosis, barriers to treatment, side effects of treatment, and if specialist input would change management.

The family doctor as the long-term coordinator:

Consultation first then communication:

The pattern is often first noticed by the family physician. Patients can come in for acne, multiple requests for a pregnancy test as periods may be irregular or for weight changes, or a laboratory report of prediabetes. The history should link those problems without making all of the symptoms an evidence of PMOS. First listen to what the patient is saying and what their goals are, and explain the criteria and uncertainty in layman's terms. The 2026 name may help explain that it's a syndrome of interacting endocrine and metabolic systems; the patient might be familiar with the name from previous records. A combination of both terms during the transition will be better continuity with the previous results and will not cause a false impression that a second disease has emerged (1).

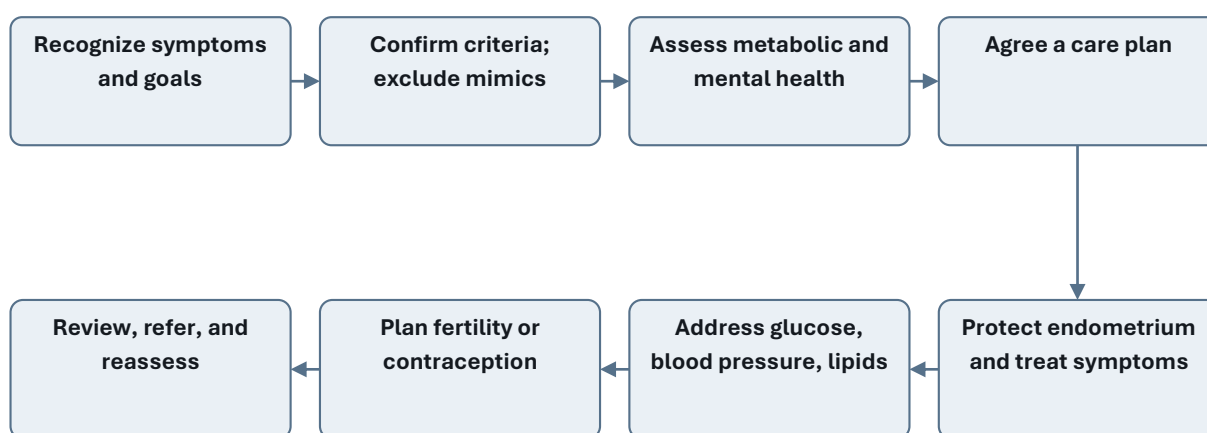
The first visit doesn't have to resolve all the problems. It should, however, have a diagnostic plan and safety plan for the patient. The diagnostic plan is a process of determining those criteria that are already satisfied and those that require testing, as well as when the outcomes will be reviewed. The safety plan includes extended amenorrhea, bleeding, virilization, pregnancy, and extreme psychological symptoms. Provide written resources from a professional source and record the selected language. If irregular cycles and hyperandrogenism are already established, the physician should explain why an ultrasound might not be necessary, otherwise the patient may think that a lack of "cyst" means they don't have symptoms.

A staged care pathway

Once the diagnosis has been made, arrange care around 4 questions. Do they want to become pregnant at the present time or in the near future? Should there be no endometrial protection due to infrequent cycles? What are metabolic, sleep, and psychological risks to be evaluated? Which symptom has the most impact on the person's life? These questions naturally promote treatment options and avoid a one-size-fits-all approach to the prescription of a pill or supplement. When necessary, the family doctor can coordinate dermatology, endocrinology, reproductive medicine, dietetics, sleep medicine, and mental-health care services with the dermatologist but referral should be made to address a specific clinical question. Clear hand over is done with diagnostic criteria, previous treatment and response, fertility goals, metabolic findings and patient preference.

Follow-up should be proportionate to the active problem. Review a new hormonal or antiandrogen treatment after enough time to assess tolerability and early response; review lifestyle or metformin plans with attention to barriers rather than a simple weight comparison. Repeat blood pressure and metabolic assessment over time, with intervals individualized to baseline results and risk. Revisit contraception and pregnancy intention because the same patient may move between goals quickly. At each annual review, ask whether the diagnosis still fits, whether bleeding patterns have changed, and whether new red flags or comorbidities have appeared. This is the advantage of longitudinal primary care: the condition can be managed as a changing health context rather than a one-time label.

Figure (2): A family physician pathway from recognition to longitudinal review. Each box and arrow is an editable Word drawing object.



PREVENTION, SCREENING, AND AVOIDING OVERUSE

Family practice is the setting in which evidence-based screening can be made practical. Baseline blood pressure, a lipid profile, and glycaemic testing are useful because they identify treatable conditions. Questions about sleep and mood can uncover symptoms that would otherwise go unrecognized. Conversely, routine serial ovarian ultrasound, repeated AMH assays, fasting insulin measurements, or universal endometrial biopsy do not follow from the diagnosis. The international guideline specifically cautions that insulin assays have limited clinical relevance for routine care and that AMH should not be used as a stand-alone diagnostic test (2). When a test is ordered, its result should be capable of changing management; otherwise it may add cost and confusion without benefit.

There are also ordinary prevention tasks that PMOS should not eclipse. Cervical screening, contraception counseling, immunization, smoking cessation, and management of chronic conditions remain important. A patient with diabetes, hypertension, or dyslipidaemia needs treatment on its own merits, including medication choices that fit reproductive plans. A patient with amenorrhoea needs endometrial protection even if metabolic tests are normal. A patient with severe depression needs timely mental-health care even if cycles are regular. The value of a family physician is the ability to hold these priorities together and to sequence them with the patient.

EQUITY, ACCESS, AND IMPLEMENTATION:

Evidence and care are not distributed evenly. Laboratory quality, pelvic ultrasound access, availability of OGTT, fertility services, and culturally appropriate dietetic and mental-health support differ between settings. The guideline's evidence base includes many specialist and higher-income-country cohorts; local populations may differ in phenotype and baseline metabolic risk. A recent population-based study of women with confirmed PCOS found that care satisfaction and trust varied with aspects of access and diagnostic experience (44). It reinforces the practical importance of timely information, respectful communication, and a reliable follow-up route, while its cross-sectional design limits causal interpretation.

When resources are limited, priority should go to a careful history, examination, exclusion of dangerous mimics, endometrial protection when indicated, and assessment of common treatable risks. A high-quality androgen assay or AMH test can refine an uncertain diagnosis, but neither compensates for a poor history. The patient should be told when uncertainty remains and

when reassessment is planned. Avoiding weight stigma is an equity issue as well as a clinical one: repeated dismissal of symptoms on the basis of body size can delay diagnosis and discourage care. Cultural expectations around fertility and hair growth can also alter what a patient chooses to disclose. Private, nonjudgmental questions allow a more accurate account of symptoms and priorities.

Table 2. Practical management by patient priority

Priority	Initial approach	Review and escalation
Irregular cycles; no pregnancy goal	Combined pill if suitable, or progestin / LNG-IUS for endometrial protection	Review bleeding, BP, contraindications; investigate persistent abnormal bleeding
Hirsutism or acne	Combined pill and cosmetic or dermatologic measures; consider antiandrogen with contraception	Allow time for hair response; assess rapid progression urgently
Metabolic risk	Lifestyle support; metformin when indicated; treat diabetes and lipids on their own merits	Review glucose, BP, lipids, tolerability, and pregnancy plans
Anovulatory infertility	Couple-based workup; letrozole when appropriate	Monitor ovulation and refer if other factors or unsuccessful cycles
Mood or eating concerns	Ask directly; use validated screening; offer treatment and referral	Reassess symptoms and avoid harmful weight messaging
Obesity treatment request	Offer evidence-based weight care; consider drugs or surgery under usual criteria	Discuss limited PMOS-specific long-term outcomes and contraception

COMMON CLINICAL DECISIONS IN GREATER DETAIL:

Distinguishing PMOS from its mimics:

Any diagnosis should be redone when the course does not follow the chronic, insidious type. If a woman has missed periods and may be capable of becoming pregnant she should be excluded first because of pregnancy. Cycle disturbance can occur as a result of thyroid dysfunction and/or hyperprolactinaemia; non-classic congenital adrenal hyperplasia can mimic PMOS with biochemically elevated androgen levels and hirsutism. Hypothalamic amenorrhoea is important especially when energy availability is low, exercise is high and stress is significant (can coexist with polycystic ovarian morphology hence scan may be misleading). If the presentation is androgenic, virilizing and/or biochemical elevation, a rapid progression should lead to a testing and referral change. The incorporation of these possibilities is one of the reasons why the Rotterdam framework explicitly mentions the need for exclusion of other causes (4) and the current guideline lays more weight on clinical judgement than on a panel for each patient (2).

Interpretation is influenced by the order of testing. Some medications, recent pregnancy or breastfeeding may influence cycles or androgen levels and prevent a diagnosis of biochemical androgen excess. A high prolactin might be transient or due to a medication and a borderline androgen might be due to assay limitations. Several tests performed at the same time may not be as useful as obtaining one test that is discordant and then repeating the test with a reliable method. The physician may be able to make a well-informed diagnosis with minimal interruption to effective contraceptive use, if the clinical history already includes documentation of hirsutism and oligomenorrhoea that have been progressive prior to hormonal therapy. However, if the clinical signs are ambiguous, biochemical testing should be used judiciously and not given a diagnosis for life.

Amenorrhoea does not necessarily mean anovulation and, in some patients, bleeding does not equate to ovulation. A menstrual calendar may be able to identify patterns when only a recalled “monthly” description is given. Ask about frequency of bleeding (without a withdrawal bleed) and if the bleeding is long or heavy. If the patient desires a pregnancy, it should be determined from the history if there has been any previous fertility testing, and what it showed regarding the partner and tubes. Contraception and endometrial protection might be a more important consideration if pregnancy is not wanted. The label is a framework, but which detail is most important will be dependent on the immediate clinical question.

However, when there is a pelvic pain, a mass, abnormal bleeding or a gynecologic problem, ultrasound has a place in the management. Should not be ordered routinely to confirm cysts for someone who already has two of the adult criteria. The variability in the quality of the equipment used for ultrasound exams and in how they are counted is another factor, as is the fact that a normal report does not negate convincing clinical features. However, because AMH is not a specific marker and is dependent on the assay, caution should be exercised when considering its use when imaging is not possible or undesirable, and when adult ovarian morphology is required (16). The family physician should inform the patient and/or family of the implications of the test prior to ordering it. If there was a plausible result that wouldn't affect management, an extra test is of little value.

Understanding metabolic risk without oversimplification:

There is a need for both population evidence and individual measurement for metabolic risk assessment. Patients may have PMOS in combination with central adiposity, insulin resistance, dyslipidaemia, hypertension and diabetes, but the combinations vary. It is important for the clinician to be aware that, whilst a lean patient may be low risk, a patient with obesity may not be high risk, and vice versa. Check blood pressure; take a blood sample to provide a lipid profile; check glycaemia using the most suitable method available; inquire about smoking, sleep, family history of premature cardiovascular disease, previous gestational diabetes and pregnancy plans. If the result is abnormal, treat the abnormal result as per the relevant disease guideline. If normal, record the time and reason for reassessment. Repeat glycaemic monitoring should be performed every 1–3 years based on an individual's risk in 2023 international guideline (2), which is quite flexible and allow room for clinical judgment.

The OGTT is cumbersome for some patients as they must come to the hospital for the two-hour test and be fasting, but fasting glucose and HbA1c may fail to detect post-challenge abnormalities. Educate on this trade-off, rather than mandate a cumbersome test. A woman who is considering pregnancy or fertility treatment may have a heightened need to complete a woman's cycle, as glycaemic status can have a significant impact on preconception optimization and antenatal planning. If an OGTT is not available, then a less sensitive test is better than not measuring glycaemic risk at all, but if the risk changes the plan should be reviewed. The blood sugar levels of fasting insulin and calculated insulin-resistance indices are frequently discussed on the web but haven't been standardized and do not have thresholds of efficacy for common clinical use in PMOS (2). Prediabetes or diabetes should be diagnosed based on the accepted glucose criteria, not based on an isolated insulin value.

The counseling about cardiovascular risk should focus on the modifiable risk factors and not turn a relative risk into a personal prediction. The meta-analysis with a large number of participants confirms the importance of maintaining blood pressure, lipids, smoking, diabetes and activity levels, pointing to ongoing attention in clinical practice (22). Does not imply that PMOS should be treated with aspirin, statins or antihypertensives when these are not indicated in the individual. If the exposure is a concern, but the patient is young, they may not have a high ten-year risk. Therefore a single “cardiac workout” at a single appointment for the PMOS label is not as rational as the review of standard risk factors at periodic preventive care visits. The same rationale is true of liver disease and sleep apnoea; the benefits of symptom and risk-driven evaluation are greater than universal testing (23,24).

Endometrial safety and abnormal bleeding:

If ovulation is irregular, it can cause extended periods of time with no uterine lining activity, resulting in irregular periods. The objective of endometrial protection is to avoid prolonged amenorrhoea and to achieve an acceptable bleeding or contraceptive pattern for the patient. One alternative is a combined hormonal contraceptive; oral progestin or levonorgestrel intrauterine system may be a better choice if estrogen is contraindicated or long-term contraception is desired. The decision should take into consideration blood pressure, migraine, thromboembolic risk, preference for daily medication, and desire for pregnancy in the near future. Record number of spontaneous bleeds, treatment selected and the responses. If the bleeding is persistent, heavier than usual or unusual at all, evaluate it as a problem in its own right. The word PMOS should not be used as a catchall phrase to describe abnormal uterine bleeding. Any diagnosis should be redone when the course does not follow the chronic, insidious type. If a woman has missed periods and may be capable of becoming pregnant she should be excluded first because of pregnancy. Cycle disturbance can occur as a result of thyroid dysfunction and/or hyperprolactinaemia; non-classic congenital adrenal hyperplasia can mimic PMOS with biochemically elevated androgen levels and hirsutism. Hypothalamic amenorrhoea is important especially when energy availability is low, exercise is high and stress is significant (can coexist with polycystic ovarian morphology hence scan may be misleading). If the presentation is androgenic, virilizing

and/or biochemical elevation, a rapid progression should lead to a testing and referral change. The incorporation of these possibilities is one of the reasons why the Rotterdam framework explicitly mentions the need for exclusion of other causes (4) and the current guideline lays more weight on clinical judgement than on a panel for each patient (2).

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The increased pooled endometrial cancer risk is clinically relevant but easy to communicate badly. A fourfold relative odds estimate from observational studies does not mean that four in ten young patients will develop cancer (25). Explain that cancer remains uncommon at younger ages, that chronic anovulation and associated metabolic factors can increase risk, and that regular endometrial protection is a practical response. Routine endometrial thickness checks or biopsies in asymptomatic patients are not recommended simply because PMOS is present (2). If bleeding is persistent or risk factors accumulate, follow the ordinary abnormal-bleeding pathway, including imaging or tissue assessment when indicated. This approach provides safety without making the patient live under a perpetual cancer warning.

Treatment monitoring and escalation:

There should be a specific goal for each treatment. If combined, possible targets are predictable bleeding, contraception, fewer acne lesions, or progressive decrease in hirsutism – adverse effects, BP levels, adherence, and desire to continue. This hair change takes a number of months and short-term follow-up should be directed not at failure but toward tolerance. With metformin, the goal may be maintaining glucose and/or normalizing weight and/or increasing the regularity of periods; track outcomes that are important and inquire about gastrointestinal problems. If antiandrogen, make sure there is good contraception and discuss contraindications and pertinent laboratory monitoring. If patient has a lifestyle plan, ask what was possible in the patient's situation and adjust the plan if it caused distress and/or could not be maintained. An intervention that elevates a laboratory measurement, but deteriorates quality of life is not the optimal option.

Escalation should be linked to a defined lack of progress towards a goal. Refer urgently for virilization, or if there is a tumour suspicion. For any unexplained bleeding, any uncertainty about pelvic disease, or endometrial disease, refer to gynecology. Use endocrinology in unusual biochemical picture, metabolic disease is poorly controlled, or another endocrine disorder is still a possibility. Use reproductive medicine where there is a need for expertise and monitoring for evaluating infertility, inducing ovulation, or when there are time-sensitive factors that would lead to an increase in cost. If acne, hair symptoms or alopecia are more severe, dermatology services might be the most important or if depression, anxiety or disordered eating is the most significant, psychological services might be the main focus. The family physician's role in metabolic monitoring and

medication reconciliation is best left in the family physician's hands rather than being passed to a single specialist in the management of the syndrome.

Document a brief care summary that will withstand shifts in clinicians and/or language. It should contain information about the diagnostic criteria met, age/life stage at diagnosis, exclusion of other causes, most recent blood pressure, lipid and glucose levels, most recent cycle and endometrial-protection plan, contraception or pregnancy intention, important psychological factors, and treatments tried and response. It is important that this summary is available because records may now include both PMOS and PCOS. A clear record reduces unnecessary imaging, inconclusive repeat tests and conflicting advice. It can also serve as a foundation on which to make decisions at the next visit if the patient's priorities have shifted.

CARE THROUGHOUT A PERSON'S LIFE SPAN:

Adolescence is the first time when a pattern might be noticed, but it also is the time when overdiagnosis risk is highest. Menstrual cycles mature after menarche, acne is omnipresent and ultrasound morphology is not very specific. The family doctor can help with acne or hair growth that is a problem for the family, it can help with metabolic and psychological health, and can plan to assess again – without making a premature assumption. If both the adolescent criteria are present, explain the diagnosis in an age appropriate way and be sure to not suggest a fixed future of infertility (17). The young person should be provided with a private conversation about contraception, sexual health and eating issues, incorporating family involvement as desired by the young person and in accordance with the law. The same diagnosis may have different priorities at different times during the reproductive years. Patient who even at the outset desire reliable contraception with fewer androgenic symptoms can later wish to have a pregnancy. At this stage, check medications for fetal safety, schedule a preconception OGTT if possible and don't assume that the woman is infertile, if she has an irregular period. Also, after a pregnancy do not assume that the syndrome has gone away because periods have temporarily changed. Other indications for continued cardiometabolic monitoring are those of gestational diabetes or hypertension during pregnancy. The family physician can provide antenatal details in the context of ongoing prevention while acknowledging that the early postpartum period can be characterized by sleep disturbance, breastfeeding, mood, and care giving demands. Later life presents other uncertainties. As the perimenopause starts, menstruation criteria become less useful, androgen symptoms may continue or alter, and cardiovascular risk factors may increase due to other factors than PMOS. Treatment for diabetes, blood pressure, dyslipidaemia and abnormal bleeding should be continued as normal and each new symptom should not be assumed to be due to a historical diagnosis. It is especially inappropriate to brush aside years of stable symptoms and then for the patients to suddenly experience “new onset” of rapid virilization. While a prior diagnosis is helpful background, it should not preclude investigation of a new problem. The aim is to have a life course profile of risk and response to treatment, not to provide re-enforcement of the initial syndrome at each appointment. The consultation needs to accommodate the patient's understanding of the name change across all age groups. “metabolic” is comforting for some as it admits that there are symptoms that were previously neglected, and it reassures others that there is some sort of consequence to being “too fat.” The family doctor can state that name refers to a wide range of interacting systems, and the individual's current findings dictate care. A normal glucose is a comfort in the short term, not a guarantee for the next 10 years and an abnormal glucose is something that can be addressed, not a personal failing. This is exact, calm language that can help people understand without making the need for follow up seem insignificant.

Collaborative decision-making when information is lacking:

A patient might not know what to do when they ask about an online promoted test, an obesity drug or a supplement. Clinical uncertainty is most often noticeable when patients ask about an obesity drug, a promoted test or a promoted supplement. The helpful answer is neither yes nor no, but how. Set the goals desired by the patient, and then talk about the quality and length of the evidence available. For instance, a slight weight loss over a brief testing period is not the same as evidence of better cardiovascular health, mental health, or fertility. The change of AMH or fasting insulin does not reflect resolved diagnosis. This separation allows the patient to consider the benefits and costs, risks, pregnancy issues, and the consequences of continued therapy. It also provides an opportunity for a patient to refuse a recommended treatment without leaving the system.

The family physician can use a short written plan with three elements: the agreed clinical goal, the action to be taken before the next visit, and the date or trigger for reassessment. The goal might be three or more protected bleeds each year, a completed OGTT before fertility treatment, fewer distressing facial-hair symptoms after several months, or treatment of a

positive depression screen. The action may be medication, a referral, or a lifestyle change chosen by the patient. The reassessment should include a way to judge whether the plan helped. Such a plan is more useful than a long list of possible complications handed to someone at the moment of diagnosis.

When care is fragmented, the physician should reconcile advice from different sources. Dermatology may focus on acne, reproductive medicine on ovulation, and endocrinology on glucose, while the patient experiences all of these at once. A medication added for one goal may conflict with a new pregnancy intention or duplicate another treatment. Asking at each visit about all current medicines, supplements, and goals makes these conflicts visible. The generalist's contribution is not to replace specialists, but to keep the overall plan coherent, explain tradeoffs in understandable terms, and ensure that no quiet risk such as prolonged amenorrhoea or untreated depression is lost between appointments.

Areas requiring further research

Much progress has been made in understanding the evidence beyond the traditional concept of an ovarian disorder characterized by cysts, and there are some unanswered clinical questions. Better estimates of phenotype-specific LT cardiovascular and cancer risks are required in representative populations, particularly among ethnic groups and into the aging spectrum. Standardised androgen assays and AMH thresholds based on age and assay platform are needed for diagnostic studies. Weight loss, changes in insulin and/or changes in testosterone should not be the sole criteria used to measure patient-important outcomes measured during trials, which should include outcomes such as live birth, sustained menstrual control, quality of life, diabetes, cardiovascular events, and harms. Specific attention should be paid to medications for obesity and to the menopause transition when considering long follow-up. Implementing research is also required. Its main purpose should be to assess whether a structured primary-care pathway can impact on diagnostic delay, increase endometrial protection and provide metabolic screening; and to do so without encouraging unnecessary investigations or increasing the burden for patients. The 2026 renaming is a chance to better understand and examine if the change in language is associated with better clinician recognition and patient understanding, but can't improve care. Education, continuity of records and access to treatment are required with a revised label. Family physicians can play a role by documenting diagnostic criteria and meaningful outcomes in their everyday clinical practice and by asking patients to identify what outcomes are important to them.

CONCLUSION

PMOS is a frequent, heterogeneous, chronic disease and its new designation highlights the endocrine/metabolic diversity. Two key features of the diagnostic foundation persist: careful clinical assessment (in adults) with the exclusion of mimics; (in adolescents) persistence of irregular cycles and hyperandrogenism, but not dependent on ultrasound or AMH. Risk is determined by genetic susceptibility and adiposity, and metabolic disturbance can occur at any body size. This information can be translated into long-term management by the family physician, who can: protect the endometrium in those patients that have few periods; assess glycaemia and cardiovascular risk; identify sleep and psychological issues; and adapt treatment to the contraceptive, symptom management, or fertility aims of the patient. There are different indications for the combined hormonal contraception, metabolism and letrozole, and newer drugs and supplements will need to be discussed candidly with respect to limited PMOS-specific outcomes. Risk estimates should not raise alarms, but should provide information to guide appropriate prevention. The most beneficial practice change is to have a documented, reviewed plan which incorporates reproductive, metabolic and mental health throughout the patient's life course. If the criteria in the record are clear, a named follow-up interval and a treatment target is selected in collaboration with the patient, then the plan can be used by all clinicians and across all ages. If combined with accurate information, shared decision making, and follow-up, the revised terminology can assist it.

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