Diagnosis of adolescent Polycystic Ovary Syndrome (PCOS) according to the 2018 International Evidence-Based Guidelines for the Assessment and Management of PCOS

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Background
Polycystic ovary syndrome (PCOS) is the most common endocrine condition affecting reproductive aged women. The diagnosis of PCOS during adolescence is controversial as adult diagnostic features overlap with normal physiological events that occur during puberty 1-3. Previous guidelines for assessment and management of PCOS have not followed rigorous best practice in development, failed to engage consumers and international multidisciplinary perspectives or were outdated 1-3 resulting in inconsistent guidelines for clinicians. The aim of international evidence-based PCOS guidelines was to promote accurate diagnosis, optimal consistent care, prevention of complications and improve patient experiences and health outcomes.

Methods
Extensive international health professional and patient engagement informed the priorities and core outcomes for the guidelines. International nominated panels including women with PCOS, multidisciplinary teams of health care professionals (paediatrics, endocrinology, gynaecology, primary care, reproductive endocrinology, obstetrics, psychiatry, psychology, dietetics, exercise physiology, public health and other experts across 44 societies and 71 countries), researchers and an evidence synthesis and translation team developed the guidelines that were funded and led by Australia 4. The evidence-based guideline development followed international best practice involving 60 systematic and narrative reviews and applying full Grading of Recommendations, Assessment, Development, and Evaluation (GRADE) framework to reflect quality of the evidence, and consider feasibility, acceptability, cost, implementation and the strength of recommendations.

There were 3 categories of the PCOS guideline recommendations: 1) Evidence based recommendation (EBR) when evidence was sufficient to inform a recommendation made by the guideline development group; 2) Clinical consensus recommendation (CCR) in the absence of evidence a CCR was made by the guideline development group; and 3) Clinical practice point (CPP). Evidence was not sought. A CPP was made by the guideline development group where important issues arose from discussion of EBR or CCR.

Summary of the recommendations
Adolescent recommendations for PCOS diagnosis aimed to avoid over diagnosis, misdiagnosis and delay and under diagnosis include:
1) Irregular menstrual cycles (CCR) and clinical hyperandrogenism (CCR) or biochemical hyperandrogenism (EBR) [See Tables and Figure below].
2) Exclusion of other disorders that mimic PCOS is required in all women but particularly in those with amenorrhea and severe phenotypes.
3) Pelvic ultrasound should not be used for the diagnosis of PCOS in adolescents or those with a gynaecological age of < 8 years (< 8 years after menarche), due to the high incidence of multi-follicular ovaries in this life stage (CCR).
4) Serum anti-mullerian hormone levels are not recommended for PCOS diagnosis during adolescence (EBR).

The value and optimal timing of assessment and diagnosis of PCOS should be discussed with the individual patient, taking into account diagnostic challenges at this life stage and psychosocial and cultural factors. For adolescents who have features of PCOS but do not meet diagnostic criteria, an “increased risk” could be considered and reassessment advised at or before full reproductive maturity, 8 years post menarche. This includes those with features of PCOS before contraceptive pill commencement, those with persisting features and those with significant weight gain.

References:

Funding: *NHMRC 2014 Project Number APP1078444 (Centre for Research Excellence in the evaluation, management and health care needs of PCOS and related health implications).

Free guidelines availability and resources: https://www.monash.edu/medicine/SPHPM/MCHRI/PCOS