Premenopausal patient with oligo/amenorrhea and/or clinical or biochemical features of hyperandrogenism

Steroid Panel, PCOS/CAH Differentiation (TC 90426) (early morning, follicular phase)

17-OHP: ≥200 ng/dL

Suggestive of Nonclassic CAH

Perform ACTH stimulation test (17-OHP response to ACTH stimulation; TC 17682)

Positive

Compatible with nonclassic CAH: 21-hydroxylase deficiency; consider genetic testing

Negative

Not compatible with nonclassic CAH; consider 11β-hydroxylase deficiency

17-OHP <200 ng/dL

Total or free testosterone: ↑ (but total <150 ng/dL)

Compatible with PCOS

Exclude: thyroid disease, hyperprolactinemia, Cushing syndrome, acromegaly, hypothalamic amenorrhea, or primary ovarian insufficiency (See Appendix Table 1 and text)

PCOS confirmed, assess comorbidities: insulin resistance/diabetes; dyslipidemia/metabolic syndrome (See Appendix Table 2 and text)

17-OHP: ≥200 ng/dL

Suggestive of nonclassic CAH: 21-hydroxylase deficiency; consider genetic testing

Not compatible with nonclassic CAH; consider 11β-hydroxylase deficiency

Total testosterone very high (≥150 ng/dL)

Suggestive of tumor source of testosterone (adrenal tumor, ovarian tumor) or ovarian hyperthecosis

DHEA Sulfate, Immunoassay (TC 402)

Elevated DHEA sulfate ≥700 µg/dL

Imaging of adrenal glands

Elevated DHEA sulfate <700 µg/dL

Imaging of ovaries

ACTH, adrenocorticotropic hormone; CAH, congenital adrenal hyperplasia; DHEA, dehydroepiandrosterone; 17-OHP, 17-hydroxyprogesterone; TC, test code; PCOS, polycystic ovary syndrome

Steroid Panel, PCOS/CAH also includes secondary androgens, which may be elevated in either nonclassic CAH or PCOS. This figure was developed by Quest Diagnostics based on references 6, 8, 9, 15, and 16. It is provided for informational purposes only and is not intended as medical advice. A physician’s test selection and interpretation, diagnosis, and patient management decisions should be based on his/her education, clinical expertise, and assessment of the patient.