T1 Key diagnostic steroids for different forms of classic CAH

STEROID	HIGH IN	LOW IN
Progesterone	21OHD, 11OHD, 17OHD, PORD, 3βHSD	LCAH
17-Hydroxyprogesterone	21OHD, 11OHD, PORD, 3βHSD	LCAH, 17OHD
11-Deoxycorticosterone	11OHD, 17OHD, PORD	LCAH, 21OHD, 3βHSD
Corticosterone	17OHD, PORD	LCAH, 21OHD, 11OHD, 3βHSD
11-Deoxycortisol	11OHD	LCAH, 21OHD, 17OHD, PORD, 3βHSD
Dehydroepiandrosterone	3βHSD	LCAH, 17OHD, PORD, (21OHD, 11OHD)
Androstenedione	21OHD, 11OHD, (3βHSD)	LCAH, 17OHD, PORD
Testosterone	21OHD, 11OHD, (3βHSD)	LCAH, 17OHD, PORD

21OHD, 21-hydroxylase deficiency; 11OHD, 11β-hydroxylase deficiency; 17OHD, 17-hydroxylase deficiency; PORD, P450-oxidoreductase deficiency; 3βHSD, 3β-hydroxysteroid dehydrogenase type 2 deficiency; LCAH, lipoid congenital adrenal hyperplasia. Parentheses indicate variable or age- and sex-dependent variations

T2 Laboratory testing for diagnosis and management of classic 21OHD

ANALYTE	PHYSIOLOGY	GOALS AND COMMENTS
Plasma renin	Volume status	Low to normal unless hypertensive
Sodium	Glucocorticoid	Normal
Potassium	Mineralocorticoid	Normal
Androstenedione	Adrenal dominant	Assess with testosterone
Testosterone	Total androgens	Normal; adrenal + gonadal
17-Hydroxyprogesterone	HPA axis status	Moderately elevated; varies with dosing
Sex hormone-binding globulin	Androgen binding	Determines free fraction; estrogen raises
-FOR MEN		
Luteinizing hormone	Gonadal axis	Normal; low if adrenal androgen excess
Follicle-stimulating hormone	Testis integrity	Normal; >25 IU/L poor fertility prognosis
Androstenedione/testosterone	Androgen sources	Ratio should be <0.5
Semen analysis	Fertility	Normal
-FOR WOMEN		
Progesterone	Adrenal vs corpus luteum	Normal in follicular phase for fertility