INDICATIONS FOR TESTING
Suspicion of primary aldosteronism
Manifestations: hypertension, hypokalemia, metabolic alkalosis

ORDER
Aldosterone/Renin Activity Ratio
OR
Aldosterone & Renin, Direct with Ratio
(both are best assessed in the morning)

Aldosterone/Renin Activity Ratio <25
(with aldosterone <15 ng/dL)
OR
Aldosterone/Direct Renin Ratio <3.7
Normal

Aldosterone/Renin Activity Ratio ≥25
(with aldosterone ≥15 ng/dL)
OR
Aldosterone/Direct Renin Ratio ≥3.7

Plasma aldosterone confirmatory tests
(Examples: oral sodium loading test, fludrocortisone suppression
test (FST), saline infusion, and captopril challenge test (CCT))
Refer to Primary Aldosterone Confirmatory Test Options
(Endocrine Society, 2016)
AND
Aldosterone (Plasma) AND/OR Aldosterone, Urine

Interpret Result:
Refer to Primary Aldosterone Confirmatory Test Options
(Endocrine Society, 2016)

Equivocal
Repeat testing in 3 months

Nonsuppressible
Primary aldosteronism
Adrenal CT scan
(MRI does not add to sensitivity)

Suppressible
Essential hypertension likely

Normal, micronodularity or bilateral masses
Unilateral macroadenoma nodule >1 cm but <4 cm
Unilateral mass ≥4 cm

>35 years
Bilateral AVS
Yes
No
Lateralization

No
Consider genetic testing for GRA
Positive
No
IAH
Yes
GRA

Unilateral mass ≥4 cm
Likely adrenal carcinoma
Surgery

Abbreviation Key
APA aldosterone-producing adenoma
AVS adrenal venous sampling
CT computed tomography
GRA glucocorticoid-remediable aldosteronism
IAH idiopathic adrenal hyperplasia
MRI magnetic resonance imaging
UAH unilateral adrenal hyperplasia