Table 1 Confounding factors that may affect the Aldosterone/Renin Mass Ratio (ARR) and lead to false positive or false negative results.

Factor	Effect on Aldosterone	Effect on Renin Mass	Effect on Aldosterone/ Renin Mass Ratio
Medications			
Beta-adrenergic blockers	↓	↓↓	↑
Central alpha-2 agonists (e.g., clonidine, alpha-methyldopa)	↓	↓↓	↑
Non-steroidal anti-inflammatory drugs	↓	↓↓	↑
Potassium-wasting diuretics	→ to ↑	↑↑	↓
Potassium-sparing diuretics	↑	↑↑	↓
ACE inhibitors	↓	↑↑	↓
Angiotensin II type 1 receptor blockers	↓	↑↑	↓
Ca2+ blockers (dihydropyridines)	→ to ↓	↑	↓
*Renin inhibitors	↑	↓	↑
Potassium status			
Hypokalemia	↓	→ to ↑	↓
Potassium loading	↑	→	↑
Dietary sodium			
Sodium restricted	↑	↑↑	↓
Sodium loaded	↓	↓↓	↑
Advancing age	↓	↓↓	↑
Other conditions			
Renal impairment	→	↓	↑
Pseudohypoaldosteronism type 2	→	↓	↑
Pregnancy	↑	↑↑	↓
Renovascular Hypertension	↑	↑↑	↓
Malignant Hypertension	↑	↑↑	↓
Premenopausal women (*vs. males)* †	→ to ↑	↓	↑

Symbols: ↓, decrease; ↑, increase; → Normal

*Renin inhibitors lower plasma renin activity (PRA), but raise direct renin/renin mass (DRC). This would be expected to result in false-positive ARR for renin measured as PRA and false negatives for renin measured as DRC.

†In premenopausal, ovulating women, plasma aldosterone levels measured during the menses or the proliferative phase of the menstrual cycle are similar to those of men but rise briskly in the luteal phase. Because renin levels are lower, the ARR is higher than in men for all phases of the cycle, but especially during the luteal phase during which aldosterone rises to a greater extent than renin. False positives can occur during the luteal phase, but only if renin is measured as DRC and not PRA. In preliminary studies, some investigations have found false positives on the current cutoffs for women in the luteal phase. Accordingly, it would seem sensible to screen women at risk in the follicular phase, if practicable.