

Simple blood tests for improving hypertension treatment

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By testing patients' levels of plasma renin, a protein secreted by the kidneys, in combination with levels of aldosterone, a hormone that causes salt and water retention, physicians were able to identify the physiological changes causing the hypertension. This led to personalized and more accurate therapy.

Patients with low levels of both renin and aldosterone are more likely to have salt and water retention due to mutations affecting the kidney tubules; they respond specifically to a medication called amiloride. Such mutations account for approximately 6 per cent of hypertension in North America, but were more common among the African patients studied.

Researchers hope that this study will help inform guidelines for treatment of resistant hypertension, not just in Africa but for those of African descent living in other parts of the world, and for all patients with resistant hypertension.