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## 40% of Hypertensive Patients Not Adhering to Medication



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A University of Leicester-led study suggests that one in three people who suffer from high blood pressure are failing to take medicine prescribed by their doctors. Researchers examined 1,400 hypertensive patients using a novel urine test to find that non-adherence to prescribed medications was around 30-40%. The findings are published in the journal *Hypertension*.

Non-adherence to medications has been found to be one of the important reasons for the lack of blood pressure control in at least 50% of the patients in the study – despite the availability of good medicines. The study was conducted in collaboration between the Universities of Leicester (lead authors Dr. Pankaj Gupta, Dr. Prashanth Patel from the Department of Cardiovascular Sciences at the University of Leicester), Manchester (Prof. M. Tomazweski) and Czech Republic (Prof. J. Widimsky).

A key factor for the lack of progress in improving adherence has been the previous lack of a clinically useful objective measure to show when people are not taking their prescribed medicine. The research team has worked to develop a robust and reliable biochemical screening method to assess for non-adherence to antihypertensive medications in urine or blood using a technique called liquid chromatography-tandem mass spectrometry.

The team has set up a National Centre for Adherence Testing (NCAT) at Leicester's Hospitals and receive samples from around 25 hypertension clinics across UK. "This is a simple, relatively inexpensive and a robust test. It has anecdotally changed the management of hypertension in many centres who use the test," said Dr. Patel.

Results of the study showed that more than 41.6% of the UK cohort and 31.5% of the Czech cohort were non-adherent to their antihypertensive medications. In addition, 14.5% of the UK and 12% of the Czech cohort were not taking any medications. Crucially non-adherence was related to the number of prescribed medications with the risk increasing by >75% with each increase in medication and it was highest with diuretics.

The study also found that younger patients and females had an increased risk of non-adherence to prescribed medications.

The researchers hope to ascertain whether non-adherent patients, on follow up, improved their medication taking behaviour and if adherence testing led to an improvement in blood pressure.

Source: [University of Leicester](#)  
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Published on : Sun, 28 May 2017