Automated Office BP Beats Routine Readings: Meta-Analysis

Automated office blood pressure (AOBP) readings are more accurate than office measurements and should be the "preferred method" for recording BP in clinical practice, concludes a meta-analysis in *JAMA Internal Medicine*.

A systematic review of the literature identified 31 articles related to AOBP including a total of 9279 patients. All of the studies included at least 30 patients with properly recorded AOBP measurements: patient unattended and sitting in a quiet place. The studies provided data enabling comparison of AOBP with awake ambulatory BP, research-quality office BP, or routine office BP measurements.

Mean systolic AOBP was 130 mm Hg or higher in about half of the studies, totaling 4892 patients. In these studies, the routine and research office systolic BP readings were significantly higher than the AOBP readings: pooled mean differences were 14.5 and 7.0 mm Hg, respectively.

In contrast, there was little or no difference in systolic awake ambulatory BP or AOBP measurements: pooled mean difference 0.3 mm Hg. The results were consistent for studies using different devices, and in studies including specialist/referral versus unselected patient populations.

Previous studies have reported that AOBP is more accurate than routine office BP measurement, with no "white coat effect." The new report is the first comprehensive systematic review and meta-analysis of the evidence comparing AOBP with other measurement techniques.

Recorded properly, AOBP is more accurate than routine or even research-quality office BP measurements, and similar to awake ambulatory BP readings. The investigators conclude: "Automated office BP should now be the preferred method for recording BP in routine clinical practice to identify patients with possible hypertension, with the diagnosis to be confirmed by 24-hour ABPM or home BP" [Roerecke M, et al. Comparing automated office blood pressure readings with other methods of blood pressure measurement for identifying patients with possible hypertension: a systematic review and meta-analysis. *JAMA Intern Med* 2019; DOI:10.1001/jamainternmed.2018.6551].

Survival Benefit of Kidney Transplant in Lupus Nephritis

Kidney transplantation reduces mortality, mainly due to cardiovascular disease and infection, in patients with lupus nephritis, reports a study in *Annals of Internal Medicine*.

Through the United States Renal Data System, the researchers identified 20,974 individuals with kidney failure due to lupus nephritis (ESRD-LN) between 1995 and 2014. Of 9659 waitlisted patients, 5738 (59%) received a kidney transplant. Eighty-two percent of waitlisted patients were women and 60% were nonwhite.

Analyzed as a time-varying exposure, renal transplantation was associated with lower all-cause mortality among waitlisted patients: adjusted hazard ratio (HR) 0.30. There were also significant reductions in mortality due to cardiovascular disease, HR 0.26; coronary heart disease, HR 0.41; and infection or sepsis, HR 0.41 for each. The survival benefit remained significant for subgroups defined by race/ethnicity, sex, and age and throughout the study period.

Secondary analysis of a Medicare-enrolled subset included matched groups of 2963 patients with and without transplantation. Mortality rates were 21.1 and 77.1 per 1000 person-years, respectively. Adjusted HRs for death were 0.32 for deceased-donor and 0.24 for living-donor recipients.

Patients with ESRD-LN are at high risk of premature death, compared to systemic lupus erythematosus patients without kidney involvement. The survival benefit of renal transplantation in ESRD-LN patients remains unclear.

This study finds a "considerable survival benefit" of kidney transplantation in a nationwide cohort of patients with LN-ESRD. The reduction in mortality results largely from lower risks of deaths due to cardiovascular disease and infections, particularly sepsis. The researchers conclude: "Therefore, timely consideration of renal transplant should be a part of routine care for patients with LN-ESRD, and improved access to renal transplantation for this population may considerably improve outcomes" [Jorge A, et al. Renal transplantation and survival among patients with lupus nephritis: a cohort study. *Ann Intern Med* 2019; DOI: 10.7326/M18-1570].