

# Smartphone-based self-management feasible for CKD

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(HealthDay)—A smartphone-based self-management system is feasible

for patients with advanced chronic kidney disease (CKD), according to a study published online May 12 in the *Clinical Journal of the American Society of Nephrology*.

Stephanie W. Ong, from the University Health Network in Toronto, and colleagues developed a smartphone-based system to boost self-care by [patients](#) with CKD. The application targeted four behavioral elements: blood pressure (BP), medication management, symptom assessment, and tracking laboratory results. When predefined treatment thresholds were crossed or critical changes occurred, real-time personalized patient feedback and alerts were provided. Changes in clinical measures were assessed for 47 patients with stage 4 and 5 CKD who were followed for six months after recruitment.

The researchers found that user adherence was high and sustained, with more than 80 percent of participants performing at least 80 percent of recommended assessments. Significant reductions were seen between baseline and exit in home BP readings (systolic BP,  $-3.4$  mm Hg; diastolic BP,  $-2.1$  mm Hg). Masked hypertension was newly identified in 27 percent of those with normal clinic BP readings. The researchers identified 127 medication discrepancies, 59 percent of which required an intervention to prevent harm. Patients indicated feeling more confident and in control of their condition in exit interviews.

"Integrating a smartphone-based self-management system into usual care of patients with advanced CKD proved feasible and acceptable and appeared to be clinically useful," the authors write.

**More information:** [Abstract](#)

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