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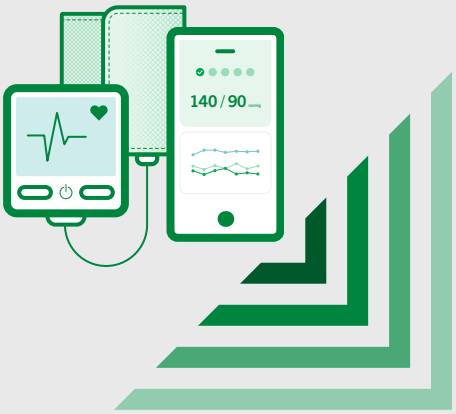
PROVIDERS' GUIDE



Digital Hypertension Management Solutions

HEALTH TECHNOLOGY ASSESSMENT | OCTOBER 2024

Hypertension is one of the most common chronic conditions in the United States, affecting an estimated 120 million adults and growing. It is a contributing risk factor for potentially fatal conditions, such as heart disease, stroke, and chronic kidney disease. Hypertension affects all demographic groups, with a higher prevalence among Black people, men, and older adults. Effective hypertension treatment often includes prescription medication and recommended changes to diet and exercise.

Digital hypertension management solutions aim to improve hypertension outcomes by engaging patients in their blood pressure treatment, improving their self-management, and expanding access to timely and appropriate care. Specifically, the solutions seek to: 1) encourage regular blood pressure monitoring using a connected blood pressure cuff, 2) automate data transfer and analysis, 3) support medication management and adjustments, and 4) deliver patient education to encourage behavior change. Some focus on the specific goals of lowering blood pressure and maintaining control, while others target a wider range of conditions related to hypertension, including general cardiovascular health, obesity, diabetes, and mental health.

The Peterson Health Technology Institute (PHTI) is an independent nonprofit organization that conducts rigorous, evidence-based evaluations of digital health tools. In October 2024, PHTI published its assessment looking at the clinical performance and cost effectiveness of 11 hypertension management solutions relative to usual care. Past assessments have examined solutions for musculoskeletal conditions and type 2 diabetes.

How the Solutions Work

All the digital hypertension management solutions use a validated, connected blood pressure monitor that displays readings in real time for the patient at home, analyzes the readings and trends over time, makes algorithmic recommendations on the basis of the data, and in some cases, transmits the data to the patient's care team. Some of the solutions have a digital platform through which patients receive feedback about their progress.

The solutions included in the assessment have three main approaches to care:

- **Blood Pressure Monitoring:** Some approaches extend existing hypertension care beyond the clinical office by supporting patients' home monitoring and delivering data back to the healthcare provider to integrate with existing workflows.
- **Medication Management:** Another set of approaches employs dedicated, virtual care teams to coordinate patients' medication adjustments as a supplement to the patient's main primary care team.
- **Behavior Change:** A third set of approaches delivers educational content, alerts, reminders, and virtual interactions with coaches (digital or human) or care teams to improve patient's self-management of their hypertension. These solutions may alert patients to seek care from primary providers for medication adjustment or acute situations.

What We Found

1 **Medication management approaches that create dedicated care teams to help adjust prescribing produce the fastest reductions in systolic blood pressure (SBP).** They show more rapid and clinically meaningful improvements in SBP compared to usual care and bring a greater proportion of patients into blood pressure control. Digital solutions that ensure that medication adjustments that take place work well enough to offset their initial investment over a 10-year period due to savings from avoided cardiovascular events and deaths.

2 **Blood pressure monitoring approaches that deliver patient home-monitoring data to clinical teams reduce SBP compared to usual care,** but improvements do not consistently achieve MCID. However, the costs savings from these health improvements are not sufficient to offset the increased costs associated with provider reimbursement through remote patient monitoring (RPM) codes at current reimbursement rates.

3 **Behavior change approaches that rely on self-management work primarily through patient education and coaching, including prompts to take medication and see a physician when needed.** Our review shows that they deliver limited incremental benefit in SBP compared to usual care and increase net health spending. These solutions may help close access and equity gaps in traditional care models by supporting patient hypertension self-management. While the price of these solutions tend to be lower than the other approaches, the small improvements in health outcomes are not enough to offset the added cost of the product.

What It Means for Your Patients

Balancing the likelihood of increased costs against the potential for individual health improvements, providers should carefully consider what solutions they recommend for individual patients.

Effective medication management is essential for getting patients to appropriate blood pressure levels. Digital hypertension management solutions can improve patient care by adding process discipline and supplementing the labor force (e.g., clinical pharmacists) within usual care settings. For provider practices that do not have a dedicated focus on hypertension or have resource constraints, these solutions can be a helpful supplement to clinical practice.

Solutions that rely on self-management for behavior change strategies create improvements that are on par with usual care but may be a helpful supplement for patients who need more support with their self-management beyond their usual care.

Accessing PHTI's Full Report

You can access the full report here.