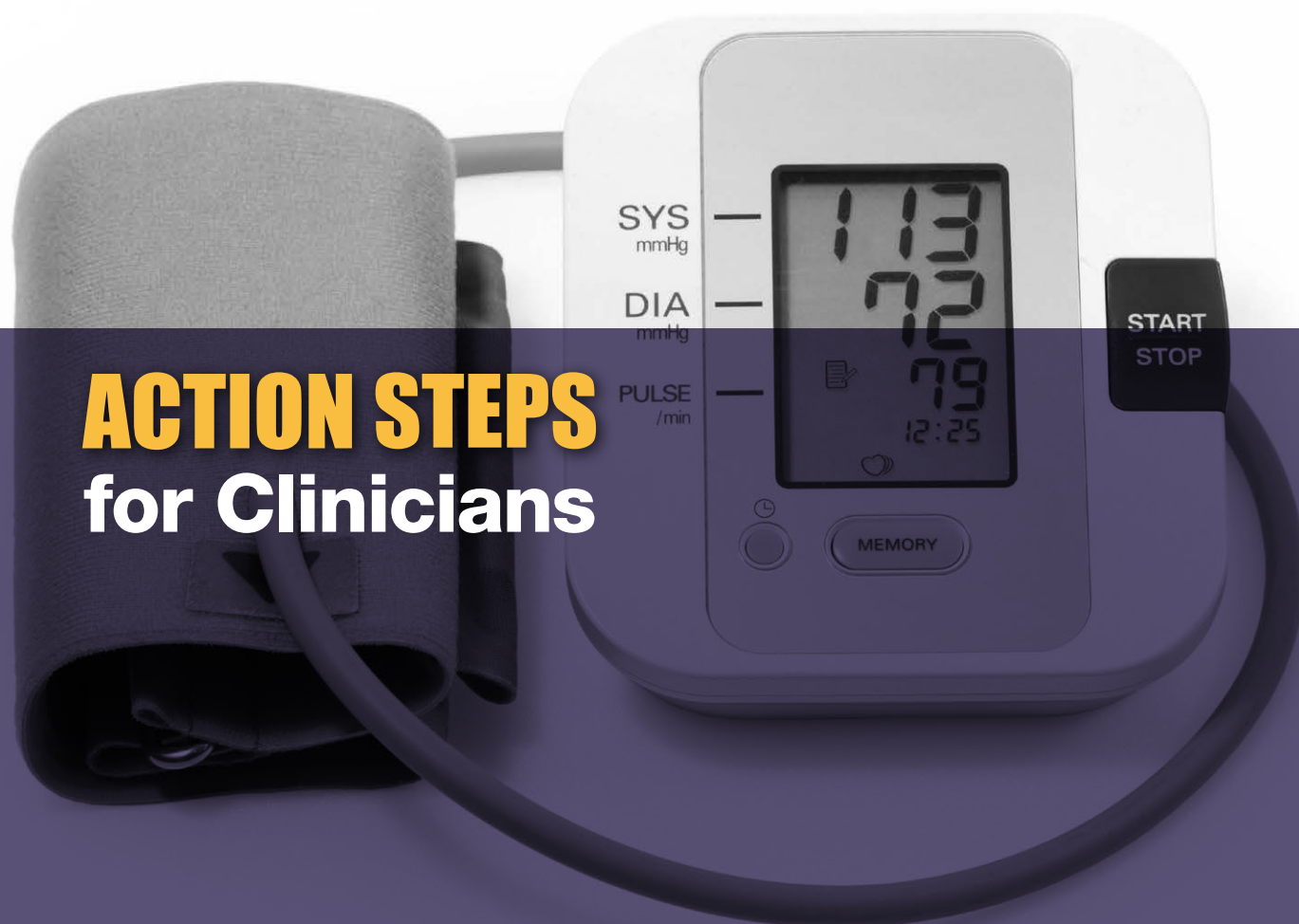




Hypertension Control



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To reduce the burden of heart attack and stroke in the United States, the Department of Health and Human Services launched Million Hearts®. The goal of this initiative is to prevent one million heart attacks and strokes by 2017 by implementing proven and effective interventions in clinical settings and communities. Million Hearts® brings together communities, health systems, nonprofit organizations, federal agencies, and private-sector partners from across the country to fight heart disease and stroke.

High blood pressure is one of the leading causes of heart disease and stroke.¹ One in every three U.S. adults (67 million) has high blood pressure, and only about half of these individuals have their condition under control.² Of the 36 million

Americans who have uncontrolled hypertension, most have a usual source of care (89.4%), received medical care in the previous year (87.7%), and have health insurance (85.2%).³

The purpose of this document is to deliver tested strategies for busy clinicians to aid in efforts related to hypertension control. These strategies were gathered from the published scientific literature (evidence-based) or found to be effective in clinical settings (practice-based). The strategies are organized into three categories of actions to improve delivery system design (Table 1), improve medication adherence (Table 2), and optimize patient reminders and supports (Table 3). This document contains additional resources and references where more information can be found for each action step.

Strategies for Hypertension Control

Table 1. Actions to Improve Delivery System Design
Implement a standardized hypertension treatment protocol. ⁴ ▶ Support titration of hypertension medications by clinical team members via a physician-approved protocol. ^{5,6}
Designate hypertension champions within your practice or organization. ⁷
Proactively track and contact patients whose blood pressure is uncontrolled using an electronic health record (EHR)-generated list, patient registry, or other data source. ⁷⁻⁹
Create a blood pressure measurement station where all patients can rest quietly for 5 minutes before measurement and that is designed to support proper measurement techniques (e.g., feet on floor, proper arm position, multiple cuff sizes conveniently located). ⁹
Have care team members review a patient's record before the office visit to identify ways to improve blood pressure control. ⁷
Proactively provide ongoing support for patients with hypertension through office visits or other means of contact until blood pressure is controlled. ¹⁰
Implement systems to alert physicians about patterns of high blood pressure readings taken by support staff. ^{11,12} ▶ Place a sign or magnet on the outside of the examination room. ▶ Build clinical decision supports into the EHR.
Provide feedback to individual clinicians and clinic sites on their hypertension control rates. Provide incentives for high performance, and recognize high performers. ⁴
Provide blood pressure checks without a copayment or appointment. Train clerical personnel in proper blood pressure measurement technique so they are capable of obtaining drop-in blood pressure readings. ^{4,13}
Encourage clinicians to take continuing education on hypertension management and care of resistant hypertension. ^{4,14}

Table 2. Actions to Improve Medication Adherence

Encourage patients to use medication reminders. ^{15–18} <ul style="list-style-type: none">▶ Promote pill boxes, alarms, vibrating watches, and smartphone applications.
Provide all prescription instructions clearly in writing and verbally. ¹⁹ <ul style="list-style-type: none">▶ Limit instruction to 3–4 major points.▶ Use plain, culturally sensitive language.▶ Use written information or pamphlets and verbal education at all encounters.
Ensure patients understand their risks if they do not take medications as directed. Ask patients about these risks, and have patients restate the positive benefits of taking their medications. ¹⁹
Discuss with patients potential side effects of any medications when initially prescribed and at every office visit thereafter. ²⁰
Provide rewards for medication adherence. ²¹ <ul style="list-style-type: none">▶ Praise adherence.▶ Arrange incentives, such as coupons, certificates, and reduced frequency of office visits.
Prescribe medications included in the patient’s insurance coverage formulary, when possible. ²²
Prescribe once-daily regimens or fixed-dose combination pills. ^{23–26}
Assign one staff person the responsibility of managing medication refill requests. ²⁷ <ul style="list-style-type: none">▶ Create a refill protocol.
Implement frequent follow-ups (e.g., e-mail, phone calls, text messages) to ensure patients adhere to their medication regimen. ^{15,28–30} <ul style="list-style-type: none">▶ Set up an automated telephone system for patient monitoring and counseling.

Table 3. Actions to Optimize Patient Reminders and Supports

Provide patients who have hypertension with a written self-management plan at the end of each office visit. ^{12,31} <ul style="list-style-type: none">▶ Encourage or provide patient support groups.▶ Use all staff interactions with patients as opportunities to assist in self-management goal-setting and practices.▶ Print visit summaries and follow-up guidance for patients.
Generate lists of patients with hypertension who have missed recent appointments. Send phone, mail, e-mail, or text reminders. ¹³
Contact patients to confirm upcoming appointments, and instruct them to bring medications, a medication list, and home blood pressure readings with them to the visit. ⁷
Send a postcard to or call patients who have not had their blood pressure checked recently. Invite them to drop in to have their blood pressure checked by a medical assistant, nurse, or other trained personnel without an appointment and at no charge. ¹²
Send patients text messages about taking medications, home blood pressure monitoring, or scheduled office visits. ³⁰
Encourage patients to use smartphone or Web-based applications to track and share home blood pressure measurements. ^{32,33}
Encourage home blood pressure monitoring plus clinical support using automated devices with a properly sized arm cuff. ^{7,34,35} <ul style="list-style-type: none">▶ Advise patients on choosing the best device and cuff size.▶ Check patients’ home monitoring devices for accuracy.▶ Train patients on proper use of home blood pressure monitors.
Implement clinical support systems that incorporate regular transmission of patients’ home blood pressure readings and customized clinician feedback into patient care. ³⁵ <ul style="list-style-type: none">▶ Train staff to administer specific clinical support interventions (e.g., telemonitoring, patient portals, counseling, Web sites).▶ Incorporate regular transmission of patient home blood pressure readings through patient portals, telemonitoring, log books, etc., to clinicians and EHR systems.▶ Provide regular customized support and advice (e.g., medication titration, lifestyle modifications) based on patient blood pressure readings.

Resources

Resources for Delivery System Design

[American Academy of Family Physicians](#). Using a Simple Patient Registry to Improve Your Chronic Disease Care.

[American Medical Group Foundation](#). Provider Toolkit to Improve Hypertension Control.

[Centers for Disease Control and Prevention](#). Protocol for Controlling Hypertension in Adults.

[Washington State Department of Health](#). Improving the Screening, Prevention, and Management of Hypertension—An Implementation Tool for Clinical Practice Teams.

Resources for Medication Adherence

[American Academy of Family Physicians](#). Improving Patient Care: Rethinking Refills.

[American College of Preventive Medicine](#). Medication Adherence Time Tool: Improving Health Outcomes.

[Centers for Disease Control and Prevention](#). Medication Adherence Educational Module.

[Script Your Future](#). Adherence Tools.

[Surescripts](#). Clinician's Guide to e-Prescribing: 2011 Update.

Resources for Patient Reminders and Supports

[Agency for Healthcare Research and Quality](#). Electronic Preventive Services Selector (ePSS).

[American Heart Association](#). Heart360. An Online Tool for Patients to Track and Manage Their Heart Health and Share Information with Healthcare Providers.

[Institute for Healthcare Improvement](#). Partnering in Self-Management Support: A Toolkit for Clinicians.

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Million Hearts® is a U.S. Department of Health and Human Services initiative that is co-led by the Centers for Disease Control and Prevention and the Centers for Medicare & Medicaid Services, with the goal of preventing one million heart attacks and strokes by 2017.