

## COMMENTARY

# Implementing the 2025 Guideline for the Prevention, Detection, Evaluation, and Management of High Blood Pressure in Adults: How to Translate Team-Based Care of Hypertension to the Real World

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**H**ypertension is a major global health problem, prevalent in  $\approx 1$  in 3 adults aged 30 to 79 years worldwide.<sup>1</sup> In fact, the number of adults with hypertension has doubled over the past 30 years. Hypertension is the leading risk factor for cardiovascular disease and mortality, far exceeding the risks incurred from other factors such as obesity, dyslipidemia, smoking, and diabetes.<sup>2</sup> Beyond its detrimental health effects, hypertension and hypertension-related complications are chronic conditions that require lifelong treatment and, as such, incur substantial economic costs to the health care system. Among privately insured adults in the United States, hypertension is linked to an approximately \$3000 higher annual per capita medical expenditure.<sup>3</sup>

In the context of the sheer magnitude of the health and economic burden incurred from hypertension, there remains a great deal of room for improvement in hypertension management. Among adults with hypertension, approximately half are unaware of the diagnosis, less than half are treated, and only  $\approx 20\%$  have their blood pressure optimally controlled.<sup>1</sup> These statistics are particularly shocking in light of hypertension being a highly treatable condition. A recent study from the Global Cardiovascular Risk Consortium demonstrated that, relative to other risk factors, effective treatment and control of hypertension are associated with the most additional life-years free of cardiovascular disease.<sup>4</sup> In modern-day

clinical practice, an expansive and ever-growing armamentarium of antihypertensive therapies is widely available, accessible, affordable, and highly effective in controlling blood pressure when used properly. Given this landscape of suboptimal blood pressure control despite readily available and effective therapies, many agencies, including the United States Surgeon General's Office, have issued calls to action to combat the persistent health threat of uncontrolled hypertension.<sup>5</sup>

In this issue of *Hypertension*, Jones et al<sup>6</sup> present the highly anticipated 2025 clinical practice guideline for the prevention, detection, evaluation, and management of hypertension in adults from the American Heart Association and American College of Cardiology. While the guideline covers standard topics such as definitions of hypertension, diagnostic testing, management strategies, and treatment targets, a noteworthy point of emphasis was placed on implementation strategies and, in particular, team-based care. While great efforts are put into developing clinical practice guidelines, they often fail to translate into improved patient outcomes due to an under-emphasis on implementation strategies. In fact, effective implementation is often much more challenging than the guideline development process itself and is a major reason why guidelines often fail to achieve their intended impact. Indeed, effective management according to guideline recommendations relies on buy-in

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from both health care providers and patients as part of a shared decision-making process that allows for individualization of care balancing values and preferences.

The guideline writers are to be commended on their efforts to prioritize team-based care as an essential component to improving hypertension management by enhancing the provider-patient shared decision-making process. In fact, the recommendation for using team-based care to manage cases of uncontrolled hypertension was given a strong recommendation with the highest level of evidence.<sup>6</sup> Beyond that, the guideline addresses implementation strategies for integrated team-based care, which involve enhancing patient engagement, utilizing home blood pressure monitoring, addressing disparities related to social determinants of health, and capitalizing on rapidly evolving health information technologies. Such technologies include using video calls, phone calls, text messages, and emails to engage and interact with patients while overcoming barriers surrounding access to care. For instance, blood pressure data can be exchanged between the patient and their health care providers with simultaneous discussion surrounding lifestyle modifications and medication management. Further, increasingly sophisticated electronic medical records allow for identification of patients with uncontrolled hypertension who would benefit from additional care. The guideline also outlines the members and roles of the hypertension team, including primary care physicians, specialty physicians, physician assistants, nurse practitioners, nurses, pharmacists, dietitians, social workers, and community health workers that can be tailored to meet an individual patient's own unique needs. The beauty of the team-based approach is that it is designed to provide personalized care while simultaneously freeing up the time of the primary care provider to address more complex issues. Among chronic health conditions, hypertension may be among the most amenable to a team-based approach.

The evidence base to support team-based care as an implementation strategy to enhance hypertension management is strong. For instance, a systematic review and meta-analysis compared a variety of implementation strategies to improve hypertension control at the patient level (health coaching and home blood pressure monitoring), the provider level (provider training, audit and feedback, and electronic decision-support systems), and multilevel (without team-based care, team-based care with physicians titrating medications, and team-based care with nonphysicians titrating medications).<sup>7</sup> The study found that multilevel multicomponent strategies were most effective, with the greatest reduction in mean systolic blood pressure achieved with team-based care with medication titration by a nonphysician (−7.1 mmHg), followed by team-based care with medication titration by a physician (−6.2 mmHg), and multilevel strategies without team-based care (−5.0 mmHg). Patient-level strategies

were also effective but to a lesser extent, with a mean reduction in systolic blood pressure of −3.9 mmHg with health coaching and −2.7 mmHg with home blood pressure monitoring. The only provider-level strategy that was effective in reducing mean systolic blood pressure was electronic decision-support systems (−3.7 mmHg), while provider training along with audit and feedback resulted in no significant difference in blood pressure. Further, a growing evidence base strongly supports the integration of health information technologies into team-based care. For instance, a recent systematic review and meta-analysis examined the impact of telemedicine trials incorporating self-blood pressure-guided pharmacotherapy in the United States.<sup>8</sup> The study found that telemedicine strategies had a greater reduction in both mean systolic (−7.3 mmHg) and diastolic (−2.7 mmHg) blood pressure, along with a 10.7% greater hypertension control rate. Importantly, again the greatest improvement in blood pressure occurred when nonphysicians were in charge of pharmacotherapy changes. Also, better blood pressure control was achieved when pharmacists provided self-management support via telemedicine. Importantly, team-based care to improve blood pressure control has also been shown to be highly cost-effective.<sup>9</sup>

Despite its proven efficacy and cost-effectiveness, widespread implementation of team-based care for hypertension will need to overcome a number of barriers. First, this approach will require major organizational restructuring and resource reallocation in many health care systems that have traditionally relied on a single provider-patient dynamic. Second, comprehensive care plans will need to be developed at the local level in such a way that they are tailored to unique geographic and cultural differences in the local environment, comorbidities, social determinants of health, health literacy, and patient preferences to promote individualization of care and health equity, particularly in resource-limited settings. Third, to fully capitalize on health information technologies, we must address digital inequities such as patient internet access, digital literacy, and integration of data into electronic medical record systems. Finally, and perhaps most importantly, current health care payment models in many countries do not provide reimbursement for hypertension care provided by team members beyond physicians. The existing evidence clearly demonstrates the added value that physician assistants, nurse practitioners, nurses, pharmacists, dietitians, social workers, community health workers provide in improving blood pressure control in a cost-effective fashion. We, as the health care community, must strongly advocate for updating existing payment models to recognize the valuable contributions of these multidisciplinary team members.

If health care systems can overcome these barriers and effectively implement team-based care, a brighter future may be on the horizon for hypertension management. A prime example of this is the HEARTS (Healthy

lifestyle counseling, Evidence-based treatment protocols, Access to essential medicines and technology, Risk-based cardiovascular disease management, Team-based care, and Systems for monitoring) program. HEARTS was developed by the World Health Organization to improve hypertension control and reduce cardiovascular morbidity and mortality at the population level. One of HEARTS' key pillars is team-based care, which stresses the importance of leveraging the expertise of a variety of health care professionals, including physicians, nurses, pharmacists, and other allied health professionals, to work together to provide patient-centered care. HEARTS has a strong and reproducible track record of success. This approach was first developed in the Kaiser Permanente system in the United States, where hypertension control rates nearly doubled from 43.6% to 80.4% in less than a decade.<sup>10</sup> Subsequently, the HEARTS framework, with a foundation of team-based care, has been effectively implemented in a number of other nations to successfully improve hypertension awareness, detection, treatment, and control rates.

In conclusion, the emphasis placed on team-based care in the latest American Heart Association/American College of Cardiology hypertension guideline represents a major step forward to enhance hypertension care in the future.<sup>6</sup> While a number of hurdles must still be cleared to integrate team-based care in many real-world clinical settings, successful implementation has been demonstrated to result in substantial improvements in hypertension control rates and cardiovascular risk reduction in a cost-effective manner. Ultimately, prioritization and follow-through with such proven strategies as team-based care may finally lead to long overdue success in curtailing the ongoing unacceptably high rates of uncontrolled hypertension.

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## Disclosures

None.

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