

New York Develops Clinical Pathway to Identify and Manage Adult Hypertension

Through the ASTHO Million Hearts State Learning Collaborative, one local clinic in New York is working with the New York State Department of Health (NYSDOH) and other state and local partners to develop and implement a standardized clinical pathway to identify and manage patients with uncontrolled and undiagnosed hypertension.

OVERVIEW

The Whitney M. Young, Jr. Health Center (WMYHC) in Albany, New York, is a federally-qualified health center (FQHC) and patient-centered medical home that serves nearly 21,000 patients. WMYHC's patient population is 45 percent African American and 14 percent Hispanic or Latino. Sixty-four percent live below 200 percent of the federal poverty level, and 57 percent are enrolled in Medicaid. Data from WMYHC's electronic medical record (EMR) system indicates 22 percent of WMYHC patients have been diagnosed with hypertension, and 52 percent of those patients have their hypertension controlled.

Through the ASTHO Million Hearts State Learning Collaborative, which is supported by CDC, WMYHC is working with state and local partners to develop and implement a set of clinical practice guidelines to create a "clinical pathway" that leverages team-based care and patient self-management to improve identification and clinical management of hypertension. The pathway targets two patient groups:

- Patients aged 18-85 with undiagnosed hypertension, defined using the [Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure](#) [JNC7] guidelines: two or more blood pressure measurements $\geq 140/90$ at visits over the past 12 months, and no diagnosis of hypertension in their medical record.
- Patients with a diagnosis of hypertension in their medical record but whose hypertension is uncontrolled.

STEPS TAKEN

The guidelines are being developed and tested using the [Plan, Do, Study, Act \(PDSA\) quality improvement model](#). To inform guideline development, the WMYHC team researched existing evidence-based guidelines and polled providers about common barriers to hypertension management observed among their patients. Providers said one of the biggest challenges was losing patients due to lack of follow-up between visits. As a result, the team included pre- and post-visit calls, as well as a behavioral education component, in the clinical pathway. Specific components of the pathway include:

- Identifying patients with undiagnosed hypertension who need follow-up and entry into the pathway. WMYHC team members used the clinic's patient registry to generate the patient list.
- Conducting "pre-visit planning calls" with patients diagnosed with hypertension and who have an office visit scheduled in the coming week. The calls are intended to decrease "no-show" rates, increase patient engagement in hypertension management, gather information such as medication lists, and increase use of nurse health coach visits.
- Developing and implementing evidence-based adult hypertension treatment guidelines. The guidelines leverage the team-based care model to establish standardized clinical management for all diagnosed patients. WMYHC staff conducted a review of evidence-based hypertension management guidelines to inform the WMYHC guidelines, including: JNC7; [Million Hearts](#)

Million Hearts Success Story



[Evidence-based Treatment Protocols for Improving Blood Pressure Control](#); the [Kaiser Permanente National Hypertension Guideline](#); [U.S. Veterans Affairs/Department of Defense Clinical Practice Guidelines for the Management of Hypertension in Primary Care](#); and the Washington State Department of Health manual, "[Improving the Screening, Prevention, and Management of Hypertension – An Implementation Tool for Clinic Practice Teams.](#)" The WMYHC team used Improving Chronic Illness Care's [Chronic Care Model](#) as a framework to leverage the care team. A WMYHC guidelines draft is included at the end of this report.

- Delivering in-office patient education about hypertension self-management. A health educator provides the education, which addresses stress management, weight management, sleep hygiene, home blood pressure monitors, and actions to take when blood pressure is high.
- Training nurses and other care team members on proper use of home blood pressure monitors so they may train patients.
- Improving accuracy of office-based blood pressure measurements through staff training, and ensuring appropriate equipment is available in each room.
- Conducting post-visit calls with patients to assess confidence in blood pressure self-management and barriers to medication adherence.

RESULTS

Outcomes of the first round of PDSA cycles include:

- Overall awareness about the importance of addressing hypertension increased across WMYHC.
- The WMYHC team identified 14 patients meeting JNC7 criteria for undiagnosed hypertension and brought them in for office visits. Three of those patients were diagnosed with true hypertension and were started in the clinical pathway.
- The health educator visited with 12 patients, who reported increased levels of awareness about self-managing their blood pressure as a result of the education sessions.
- The WMYHC team attempted to contact 118 patients on the post-visit call list. After five calling sessions, they were able to reach approximately half of the patients. Of those, 31 percent reported that they felt more confident in managing their hypertension after their office visit.
- Several patients benefited immediately from being included in the pathway. For example, one patient who was called had chest pain rated 8 out of 10. The patient was transferred to triage nurse who instructed the patient to go to the emergency room if the pain worsened, and scheduled an appointment with the patient's primary care provider. The patient was seen the following Monday. Another patient who was contacted had run out of hypertension medications and was unable to get more because his insurance had lapsed. He was instructed to come to the clinic to meet with an enrollment specialist and health educator. During that visit, he received a supply of medications and his insurance was reactivated.

NEXT STEPS

- Solicit additional provider feedback on the draft guidelines and make additional revisions.
- Run the patient health registry list again to identify additional patients with undiagnosed hypertension.
- Modify guidelines to increase patient show rates for follow-up office visits. A similar pilot in Troy, New York, is testing a promising strategy using bright orange reminder cards to prompt patients to stop at the front desk to schedule an appointment before they leave.

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- Implement an eight-question medication adherence tool to assess patient medication adherence and barriers.
- Help non-provider staff prioritize their work around hypertension management.
- Connect with the local health department and community health navigators to learn about community-based support available for patients.
- Work with interns from the Albany College of Pharmacy and Health Sciences to enhance medication adherence.
- Work with Hixny, the regional health information exchange, to identify zip codes in Albany County with high prevalence of uncontrolled hypertension and convene key stakeholders to pilot population health initiatives to improve control rates in those zip codes.

LESSONS LEARNED

- Provider feedback is critical, but can be challenging to obtain due to competing priorities.
- Scarce resources such as staff time can hinder guideline efficacy.
- Losing patients to follow-up continues to be a challenge. The WMYHC team is evaluating strategies and will develop a PDSA cycle to address this issue.

RECOMMENDATIONS

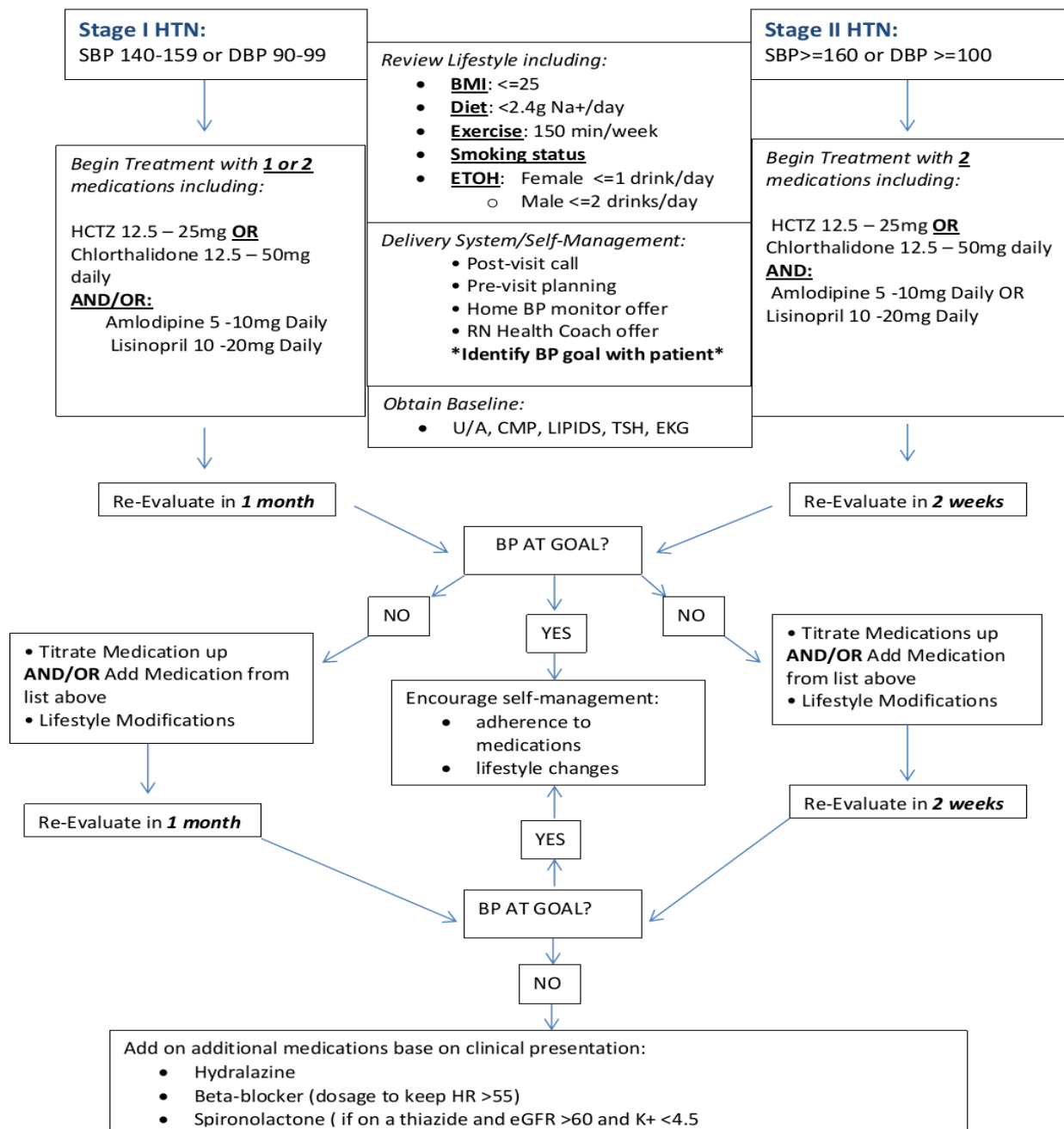
- Structure clinical pathways to maximize use of care team members' knowledge and licensures.
- Leverage all available data sources. Collaborate with a wide variety of partners (e.g., states, counties, facilities, payers, and regional health information organizations) to access their data, and don't be shy to ask for it from other agencies.
- Prioritize securing buy-in at every level. In New York, WMYHC is benefiting from strong support at every level, from NYSDOH Commissioner **Nirav Shah** to individual members of the clinical care team.
- Consistently implement a patient registry and national guidelines to manage your patient population.
- Get your state health agency on board with your work, and be willing to think beyond traditional roles. NYSDOH has provided critical support to the WMYHC team in several ways. NYSDOH staff shared evidence-based hypertension management guidelines to inform development of the WMYHC guidelines, and provided an opportunity for WMYHC staff to interact with Shah, state officials, health IT staff, educational institutions, and others. Shah has also provided leadership and support by sending letters to payers across the state to get involved in the New York Million Hearts Learning Collaborative team. As a result, six new payers have joined the collaborative, which is strengthening conversations around many activities including home blood pressure monitoring, patient incentives, and payment models for nurse visits.

FOR MORE INFORMATION

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ADULT HYPERTENSION TREATMENT GUIDELINE-draft



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