



IMPROVING BLOOD PRESSURE CONTROL: INTERDISCIPLINARY TEAMS ARE AN EFFECTIVE CLINICAL ACTION YOU CAN TAKE

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[Strategies for Achieving Million Hearts® Goals]

Many studies have shown the effectiveness of utilizing interdisciplinary teams to improve blood pressure control. The team-based care approach was a recommendation of the US Community Preventive Services Task Force more than five years ago and has seen widespread success in a variety of clinical settings.



The Brigham and Women's Hospital program, led by Dr. Naomi Fisher, initiated a successful team-based approach in 2017 and 2018. This story highlights strategies, steps, keys to success, and challenges they overcame throughout their process.

The Brigham and Women's Hospital, located in Massachusetts, serves patients from New England, throughout the United States, and from more than one hundred countries around the world. Brigham Health serves as a major teaching hospital of Harvard Medical School and its Division of Cardiovascular Medicine treats more than 50,000 outpatients and 7,000 inpatients, performs 8,000 procedures and operates two acclaimed cardiac rehabilitation facilities in Foxborough and Jamaica Plain.

[Implementing Interdisciplinary Teams]

Dr. Fisher served as clinical lead to develop a remote, patient navigator-led hypertension innovation program. This collaborative team included nurses, pharmacists, internists from the Department of Medicine, Division of Primary Care and Quality team, and (expert managers and nurses integral to primary care operations from Partners HealthCare Population Health).* Brigham Health administrators and the partners were seeking to prevent cardiovascular events and deaths with a more intensive, and at the same time, cost-effective program.

This team first worked to develop an algorithm, based upon the American College of Cardiology/American Heart Association (ACC/AHA) guideline for high blood pressure, with strategies proven to improve medication adherence and that could be administered efficiently by patient navigators. Dr Fisher, an endocrinologist and hypertension specialist, played a critical role in developing the clinical algorithm that could be used across the interdisciplinary team with ease.

Throughout the pilot and ongoing implementation, team members emphasize the key role Dr. Fisher plays in the success of the program: " Dr. Fisher's knowledge and leadership, serving as champion and coordinator, is key to the program's success," reported Advanced Practice Clinical Pharmacist, Jacqueline Dunning.



[Factors For Success]

The initial pilot, known as the Brigham Protocol-based Hypertension Optimization Program (BP-HOP), enrolled 130 patients, all hypertensive with blood pressure of 140/90 or greater. The average participant age was 59, 56% were female and 61% were white. (A detailed participant profile and the clinical algorithm is provided in the Clinical Cardiology article.)*



Ninety percent of those enrolled completed the program, which involved home blood pressure monitoring in the morning and evening, prior to taking their antihypertensive medications. Each patient was provided a blue-tooth enabled home monitoring device. Control was reached in 91 percent of those engaged in the program who monitored their blood pressure at home on a weekly basis. Also impressive, control was reached in just seven weeks for many patients and without a large increase in the number of pills taken.

Innovation was a key factor for success in this program.

First, the use of patient navigators, pharmacists and the interdisciplinary approach provided for frequent feedback and support. Throughout the process, patient navigators were ideal coaches and motivators. In addition to assisting with medication titration, the trained navigators were readily available to participants with questions and concerns. The team was able to reach this impressive control rate by optimizing technology, innovation and data collection. The time spent at the beginning of the project, as an interdisciplinary team developing the algorithm, provided for agreement and knowledge building. Incorporating high quality monitoring cuffs, which were blue-tooth enabled to provide automatic transmission of blood pressures into the electronic medical record, enabled a rapid response by team members and greater engagement with the patient.

“ The time-honored model of treating hypertension via traditional visits to the doctor is neither effective nor sustainable,” Fisher adds. “Development of innovative solutions to manage hypertension effectively and efficiently, and thus reduce the cardiovascular risk burden in larger populations, is critical. Organizations can and should develop and adopt innovative technologies to create sustainable solutions for the control of hypertension.”

When looking to replicate this program in other large-scale systems, the team recommends identifying key champions and partners that can guide the program from the pilot phase to scaling and sustaining the initiative. Focusing on a comprehensive clinical algorithm was critical. And of course, establishing the funding to provide all necessary elements, including both the hardware (validated blood pressure cuffs) along with the complex software and a sophisticated technology support partner to assist with information technology issues at many levels. Initially funded by a grant, the Brigham Health team is now working to scale up this program due to its cost-effectiveness and success.

Information for this spotlight was gleaned from the February 2019 article Development of an entirely remote, non-physician led hypertension management program published in [Clinical Cardiology Volume 42, Issue 2](#).