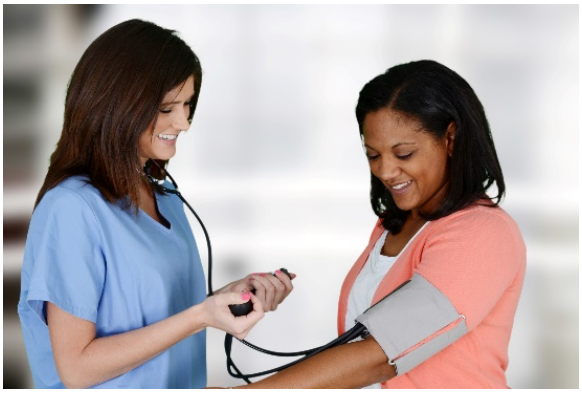
BP Connect: Improving Blood Pressure Follow-Up



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Overview

To prevent heart disease and stroke in high-risk patients, we have improved follow-up of high blood pressure in specialty care settings, doubling the odds of patients receiving timely primary care follow-up for high blood pressures and reducing the time to follow-up by nearly half. The BP Connect protocol is being implemented in both primary care and specialty care clinics in multiple Wisconsin health systems including Gundersen Health System, Divine Savior Healthcare, and UW Health, with a pending grant to implement at Medical College of Wisconsin.

"There is nothing that will save more lives than controlling blood pressure."

- Former CDC Director

The Clinical Problem

High blood pressures are the most prevalent and reversible cardiovascular disease risk factors among adults with chronic conditions, who are often vulnerable to gaps between specialty and primary care. Increasing preventive services to address hypertension could prevent more early deaths than any other preventive service, such as lipid treatment, cancer screening, and pneumococcal or influenza vaccination.

It is rare that high blood pressure is addressed in specialty visits. For example, in rheumatology visits even when a blood pressure of ≥160/100 was taken,

- blood pressure was not discussed/documented in two-thirds of the visits, and
- only 1 in 10 received any advice to follow-up for high blood pressure.

This may be due, in part, to the perception that specialists do not consider blood pressure care to be within the purview of their practice. Specialty clinic visits equal primary care visits in the United States, and specialty physicians outnumber primary care physicians. As such, specialty clinics have the opportunity to improve cardiovascular care for patients most at risk.

Our Response

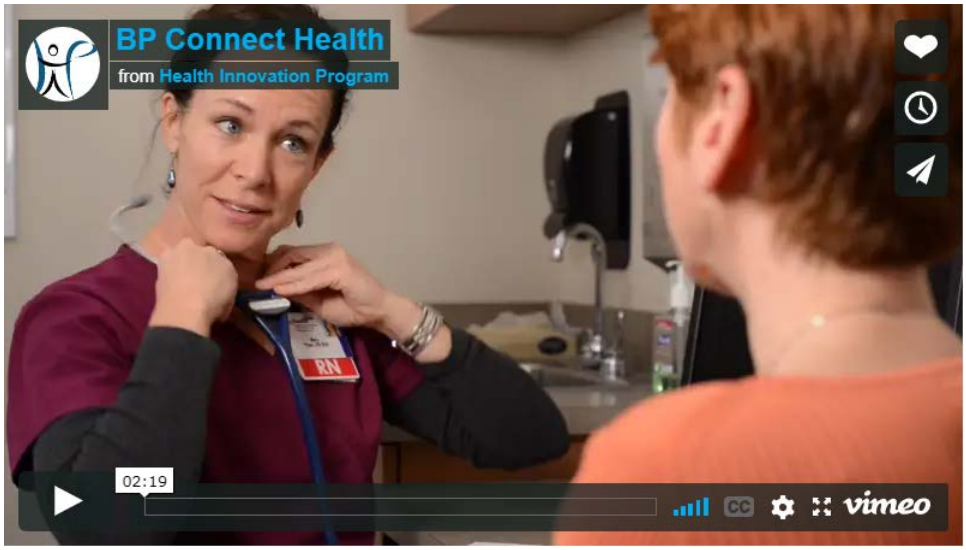
The BP Connect Protocol

To address these issues, the BP Connect staff protocol was created from an evidence-based primary care hypertension staff protocol, which was adapted for use in specialty clinics. It is a staff protocol performed by medical assistants or nurses during vitals assessment using a series of electronic health record (EHR) alerts

prompting staff to *Check* to re-measure high blood pressures, *Advise* with brief counseling, and *Connect* using a simple clickable follow-up order.

> BP Connect is designed to connect patients with high blood pressure in a specialty visit back to primary care for timely follow-up.

The short video below demonstrates the protocol.



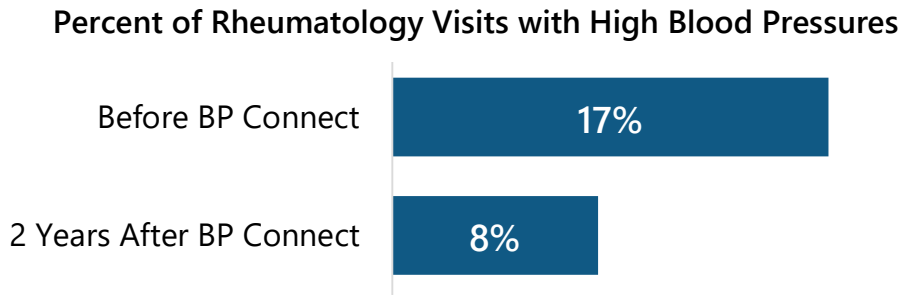
Development of the Protocol

The BP Connect staff protocol was developed at three rheumatology clinics at a large academic health system.

Dr. Bartels and her team used a participatory work system redesign to develop the protocol, and held focus group sessions with medical assistants (MAs) and nurses to (a) assess current processes and needs, and (b) develop a proposed EHR-supported blood pressure alert and referral process.

Results

Dr. Bartels et al. conducted a study on the effectiveness of the BP Connect protocol (*Bartels et al. Arthritis Care Res 2018*) and found that after implementing the protocol, the odds of patients receiving timely primary care follow-up for high blood pressures doubled, and the median time to follow-up declined by nearly half, dropping from 71 to 38 days.



Additionally, rheumatology visits with high blood pressures recorded declined from 17% to 8% over a 2-year period, which suggests that the protocol helped reduce high blood pressures in this population.

Lasting Impact

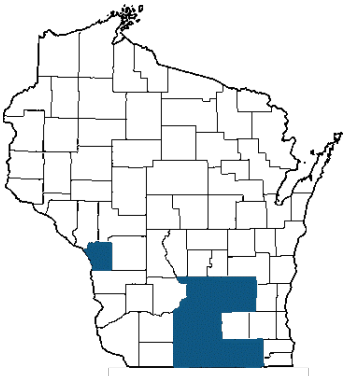
A toolkit that contains the BP Connect protocol and a variety of resources to enable organizations to implement it effectively is available for free on HIPxChange. The toolkit can be used by health care administrators, clinicians, and/or researchers who seek to improve follow-up care when high blood pressure is identified in specialty clinics. One community practice successfully used the toolkit to re-create the BP Connect protocol EHR tools in a day.

BEFORE: "There is no system. I don't ever know what happens."

- Rheumatology MA

AFTER: "You just have so many high ones… it would just be, 'Oh, it's always like that.' Once you get used to doing [the protocol], it's actually easier."

- Rheumatology MA



Current Impact

The BP Connect protocol is being implemented in both primary care and specialty care clinics in multiple Wisconsin health systems including Gundersen Health System, Divine Savior Healthcare, and UW Health, with a pending grant to implement at Medical College of Wisconsin where diverse stakeholders co-designed both the BP and Quit Connect interventions. Two-year follow-up indicated population level improvements across 28,285 post-implementation visits.

While the original implementation of BP Connect was in rheumatology clinics, it could also be used in other specialty clinics. The program would be particularly relevant to specialties associated with high cardiovascular disease risk (e.g., status post-cancer, HIV care.

In addition to the BP Connect program, Dr. Bartels has developed other protocols to improve the health of patients in specialty care. Quit Connect is a specialty protocol to improve referrals to tobacco quit lines, and materials to implement the protocol are also available for free on HIPxChange. Once toolkits are posted on HIPxChange, they are submitted for inclusion on other dissemination websites to increase their reach. For example, our groups' work has been shared via the Wisconsin Collaborative for Healthcare Quality, the Colorado Practice Transformation Network, and the national Million Hearts Campaign supported by CMS and CDC. Fit Connect is currently under development and uses an electronic health record referral system to connect arthritis patients to an evidence-based arthritis activity program, etc.) where high blood pressures are not addressed routinely (e.g., non-cardiovascular specialty clinics).

Resources

Toolkit

- ✓ BP Connect: Improving Follow-up After High Blood Pressures

References

- ✓ Bartels CM, Ramly E, Johnson HM, Lauver DR, Panyard DJ, Li Z, Sampene E, Lewicki K, McBride PE. Connecting Rheumatology Patients to Primary Care for High Blood Pressure: Specialty Clinic Protocol Improves Follow-up and Population Blood Pressures. *Arthritis Care Res (Hoboken)*. 2019 Apr;71(4):461-470.
- ✓ Ramly E, Stroik B, Lauver DR, Johnson HM, McBride P, Steffen Lewicki K, Arnason J, Bartels CM. Assessing Unwanted Variations in Rheumatology Clinic Previsit Rooming. *J Clin Rheumatol*. 2019 Apr;25(3):e1-e7.
- ✓ Chodara AM, Wattiaux A, Bartels CM. Managing Cardiovascular Disease Risk in Rheumatoid Arthritis: Clinical Updates and Three Strategic Approaches. *Curr Rheumatol Rep*. 2017 Apr;19(4):16.