Office-Based Nursing Staff Management of Hypertension in Primary Care

Danielle R. Gindlesberger, MD

ABSTRACT

A family medicine practice in a large multi-specialty clinic undertook a quality improvement initiative focusing on blood pressure control. Current rooming procedures were reviewed, including obtaining accurate and reliable blood pressures. All rooming staff were instructed how to take an accurate blood pressure and were observed at random over a 3-month period to ensure continued accuracy. Rooming staff (medical assistants and licensed practical nurses) were engaged to give patient education and to arrange a standard 2-week follow-up with a rooming staff team member (nurse visit) if the patient’s blood pressure was elevated. Clinicians were educated briefly about the importance of managing hypertension regardless of reason for visit. Blood pressure control (<140/90) in patients age 18-85 without diabetes improved from 68.4% to 75.8% in 3 months.

BACKGROUND

Dean Health Systems is a multi-specialty health care delivery system based in Madison, Wisconsin. The Sun Prairie, Wisconsin, clinic is predominantly a primary care clinic, with 11 family medicine providers. The system has provided primary care physicians with dashboard reports on Wisconsin Collaborative for Healthcare Quality (WCHQ) measurements. These reports were unblinded, so physicians and clinics were able to see areas for improvement when compared to their colleagues. Because of the need to improve hypertension control, the Sun Prairie clinic’s Family Medicine department developed a hypertension improvement project using Lean methodology.

METHODS

Administrators, clinicians, roomers, and triage staff all provided insight into the workflow of a patient presenting to our primary care clinic. We mapped out our perception of the process a patient goes through when presenting to the clinic, and then observed the actual process through multiple patient interactions. This process allowed us to find the discrepancies between what ought to be done and what was actually happening in the clinic. With the input of the same group of people, we developed a more efficient work flow. To ensure accurate blood pressures, all nursing staff were educated on the appropriate technique for obtaining blood pressures and were observed randomly over 3 months to ensure maintenance of the appropriate technique.

Clinician inertia was often related to the number of problems to be addressed at any given visit. An elevated blood pressure (BP) often was pushed to the bottom of a list of concerns and sometimes was overlooked. A process of alerts in the electronic medical record were built to alert roomers to the elevated blood pressure, prompt them to obtain a repeat blood pressure measurement after 5 minutes (the recommended timing of sitting at rest from the American Heart Association), hand out patient education material, and schedule a 2-week follow-up nurse visit for BP recheck. A 2-week follow-up was chosen because most antihypertensive medications have reached their full effect by 2 weeks.

An alert for the clinician also was designed, with interactive tools of most recent BPs and a reminder to update the patient’s problem list. The problem list was enhanced so that all BP-related labs and medications would display in 1 place in the problem list to make medication adjustments easier. Since patients were aware that their BP was elevated and would be addressed at their appointment, more clinicians were taking the extra few minutes to change medication in addition to addressing the other concerns that patients had that day. When patients returned at 2 weeks for BP checks with nursing staff (medical assistants), patients were told their BP. If it was elevated they were told the clinician would be in contact with them to adjust their medication. A telephone encounter in the electronic medical record (EMR) then was generated and sent to the clinician with the patient’s most recent blood pressures.
DISCUSSION
While the original focus on numbers was with the clinic’s non-diabetic population, we are utilizing this same process for diabetic patients with a goal BP of < 130/80. We have seen improvement in these numbers as well, but with a slower change—as would be expected given the lower goal. We currently are extrapolating the lessons learned at our clinic and implementing them across other system sites. As a multi-specialty health system, we now are focusing on ways to incorporate what we have learned in a primary care setting and trying to implement changes in specialty departments in which the clinicians do not treat hypertension. The need for ease of follow-up for patients is key. Given rising health care costs and increases in patients’ deductibles and co-pays, providing an easy-to-use nursing system that requires no payment from the patient increases patient willingness to return to the clinic at frequent intervals, which in turn results in quicker blood pressure improvement. Use of nursing intervention to help with blood pressure control is not a new model of care, but it is a new model of care for our clinic. We have utilized nursing staff to manage diabetes through diabetes nurse educators for many years, but this had not been expanded to blood pressure management before now.

RESULTS
At the start of this quality improvement project, BP control (BP <140/90 in nondiabetic patients age 18–75) was only 68.4%. By 3 months it had improved to 75.8% (Table 1, Figure 1). We continue to track progress.

Engagement of nursing staff was important in the improvement process, and hypertension control numbers were displayed each month in each nursing station along with the previous dashboard reports.

Financial Disclosures: None declared.
Funding/Support: None declared.

REFERENCES
1. Okonofua EC, Simpson KN, Jesri A, Rehman SU, Durkalski VL, Egan BM. Therapeutic inertia is an impediment to achieving the Healthy People 2010 blood pressure control goals. *Hypertension*. 2006;47(3):345-351.
The mission of *WMJ* is to provide a vehicle for professional communication and continuing education for Midwest physicians and other health professionals.

*WMJ* (ISSN 1098-1861) is published by the Wisconsin Medical Society and is devoted to the interests of the medical profession and health care in the Midwest. The managing editor is responsible for overseeing the production, business operation and contents of the *WMJ*. The editorial board, chaired by the medical editor, solicits and peer reviews all scientific articles; it does not screen public health, socioeconomic, or organizational articles. Although letters to the editor are reviewed by the medical editor, all signed expressions of opinion belong to the author(s) for which neither *WMJ* nor the Wisconsin Medical Society take responsibility. *WMJ* is indexed in Index Medicus, Hospital Literature Index, and Cambridge Scientific Abstracts.

For reprints of this article, contact the *WMJ* at 866.442.3800 or e-mail wmj@wismed.org.

© 2012 Wisconsin Medical Society