

Community Team-Based Care for Hypertension Management

Implementation Protocol

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2014



Table of Contents

1. Project overview	3
2. Community Team-Based Care (TBC) Approach.....	5
3. Evaluation of Community TBC.....	8

Project overview

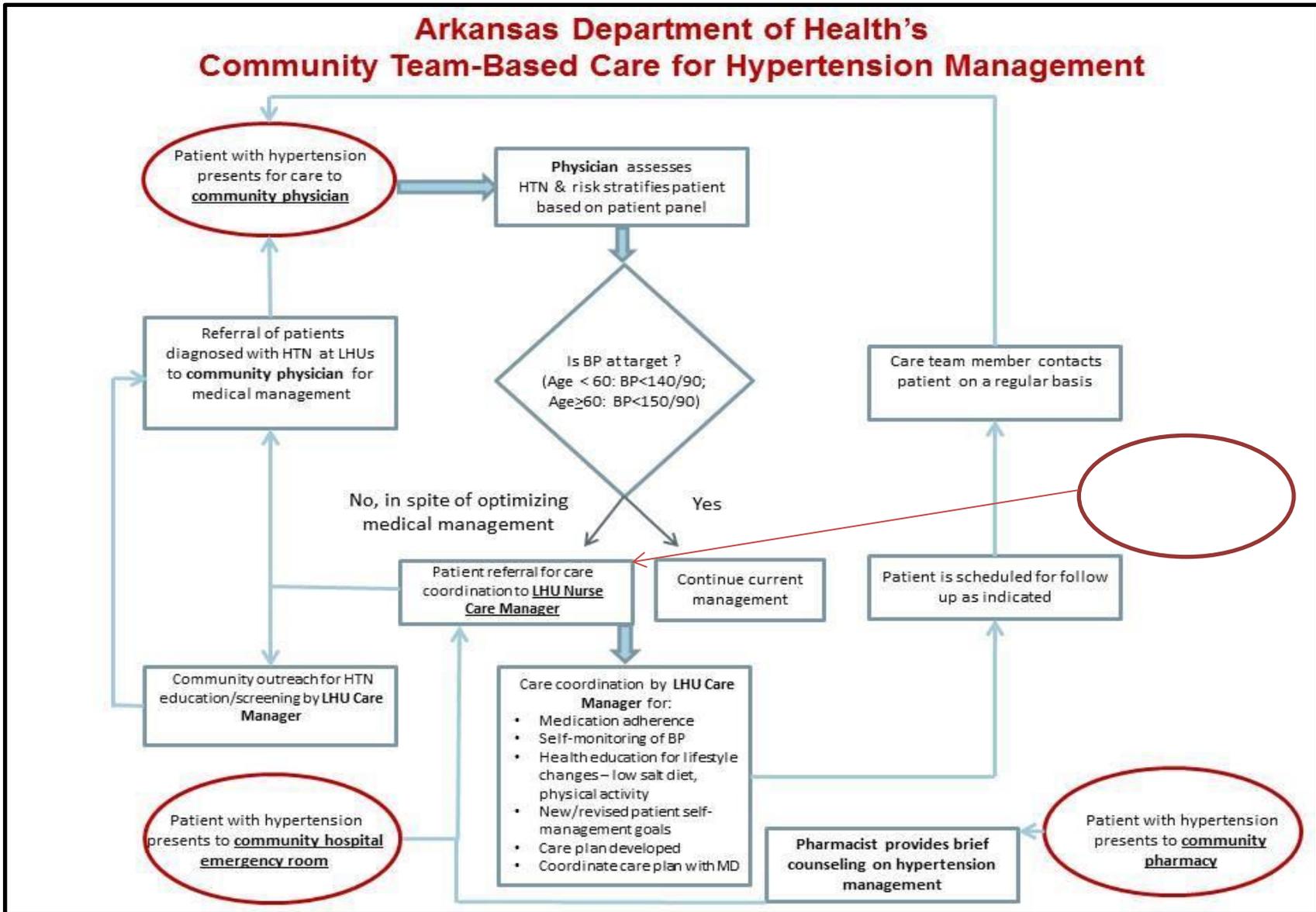
Hypertension is a major public health problem both for Arkansas and the nation. According to the 2013 BRFSS survey, 38.9% of Arkansans age 18 and older have self-reported hypertension. An estimated 54% of adults with hypertension have it uncontrolled. Uncontrolled hypertension is the leading cause of both fatal and non-fatal cardiovascular events. These include coronary heart disease, myocardial infarction, congestive heart failure, and stroke and kidney disease. A substantial number of cardiovascular deaths could be averted if the blood pressure is controlled. Studies have shown that optimal blood pressure control will prevent 19%-56% of coronary heart disease events in men, and 31% to 57% of coronary heart disease events in women. In 2008, hypertension accounted for nearly 328,000 deaths in the United States either primarily or as a contributing cause, accounting for nearly 1000 deaths per day. Arkansas death rates for hypertension-associated conditions are up to 33% higher than the US death rates. The medical and public health significance of hypertension control cannot be understated.

Hypertension and related conditions pose a huge cost burden to the state and the nation. Hypertension costs an estimated \$131 billion in direct health care costs to the nation. The direct medical costs associated with hypertension and hypertension-associated conditions were \$1.5 billion in 2010 in Arkansas, of which, \$532 million is directly attributed to hypertension. Even a modest reduction of 5 mm of Hg in systolic blood pressure, can reduce coronary heart disease events by 9% and stroke by 14%. There are several factors cited in the literature for uncontrolled hypertension, some of them are related to patients and others related to health care provider, and health care system. Factors associated with the patients include non-adherence to lifestyle modification and pharmacologic therapy. Non-adherence to lifestyle modification includes poor nutrition, obesity, alcohol consumption (>2 drinks per day for men and >1 drink per day for

women) and physical inactivity. Non adherence to pharmacologic therapy includes medication non-adherence either due to unaffordability, or simply not taking it as scheduled/recommended; not engaging in self-monitoring of blood pressure; and poor follow-up to the physician office visits. Provider and health care systems related factors include not delivering evidence based treatment for hypertension, and lack of care coordination. Studies suggest that a combination of these factors have led to the increased prevalence of uncontrolled hypertension.

The current model of patient working with the primary care provider alone has not shown to improve blood pressure control in population at large. As a consequence, 16 million adults with hypertension who are treated remain uncontrolled. A Team-Based Care (TBC) is an evidence-based model that includes the patient, patient's primary care provider, and another person such as nurse, pharmacist, dietician, social worker, or a community health workers. TBC has been shown to improve blood pressure control among people with uncontrolled hypertension in a clinical setting. However, it is underutilized. One of the main reasons for its underutilization is that the current model of care does not reimburse for another person on the team, who is utilized to provide team-based care. However, with the emergence of Patient Centered Medical Home and Affordable Care Act roll out, more insurance providers are reimbursing for team-based care services. For example, Arkansas Medicaid through its Payment Initiative Program plans to provide \$4/beneficiary/month to the physician office for primary care case management services. To date, team-based care management has been conducted in managed care populations and in urban settings, none among underserved rural populations in community settings.

Figure 1. Community Team-Based Care Model Flow Chart



Community Team-Based Care (TBC) Approach

The community TBC is a quality improvement program that fosters a public-private partnership between the Arkansas Department of Health's Local Health Unit and a private community physician to provide community team-based care for patients with uncontrolled hypertension.

The approach has a retrospective and prospective component to identify individuals with uncontrolled hypertension. The community physician will use his/her electronic medical record to review the patient panel and identify individuals eligible for community TBC. The following are the individuals eligible for community TBC from a retrospective review of EMR – those with a diagnosis code of hypertension; systolic blood pressure > 140; diastolic blood pressure > 90; and/or systolic and diastolic blood pressure >140/90 during the past year. Once these individuals are identified, the care manager (ADH LHU nurse) will mail them a letter recommending that they make an appointment with the community physician's office, if they do not already have an appointment within next 4 weeks /) The community physician will also prospectively refer patient's seen in the clinic meeting the eligibility for the community TBC, to the care manager. Community physicians without an EMR will prospectively refer patients seen in the clinic alone using the referral form. Below are the steps in the approach, once patients with uncontrolled blood pressure are identified:

1. Patients with hypertension present for care to community physician during an office visit.
2. During the office visit, physician assesses hypertension control and risk stratifies patient based on his/her patient panel.
3. Physician assess if patient's BP is on target based on the new JNC 8 criteria.

4. If patient's BP is not on target (Age < 60: BP<140/90; Age≥60: BP<150/90), the patient is referred to care manager for community TBC. If patient's BP on target, physician continues current management.
5. The care manager (ADH LHU nurse) calls those identified for community TBC within one week of office visit. The care manager offers knowledge and skills needed for patients to manage their hypertension. The issues addressed will include but not limited to, medication adherence, self-monitoring of blood pressure, health education for lifestyle modification and ensure follow up with the physician. The care management can be delivered via telephone, or by bringing the patient to the local health unit in-person. Additionally, for patients with transportation issues, the care manager will make home visits as needed.
6. The care manager also ensures that patient keeps up their follow up visit with the physician by providing reminders.
7. The care manager will call the patients biweekly and emphasize the elements of optimal blood pressure control.
8. The care manager will also refer patients diagnosed with hypertension at LHU during their visit either for prenatal, family planning or other services they receive through LHU, to the community physician for medical management.
9. The care manager will also work with hometown health coalition members and other partners in community outreach efforts for hypertension control.
10. We plan to work with community pharmacy in providing brief hypertension counseling for patients during every encounter.

11. We also plan to work with the community hospital in engaging emergency room physicians to refer patients with uncontrolled hypertension to the LHU nurse for team-based care.
12. The care manager will work with the patient biweekly initially and tailor it to the needs and availability of the patient until the blood pressure is controlled (<140/90), or the patient refuses participation, or the patient moved out of the area.

Outreach Efforts

The community team base care for hypertension has partnered with the office of Minority Health involving the Arkansas Minority Barber & Beauty Shop Health Initiative (AMBBHI). This partnership will be to screen for hypertension, diabetes, and cholesterol. The primary goal of this joint partnership is to identify those African American in the community with undiagnosed hypertension and uncontrolled hypertension and to refer them to their Primary Care Physicians for treatment and to utilize the community team base care coordinator to teach life style modifications, such as the importance of proper diet, exercise/physical activity, tobacco prevention/cessation. The community team base care coordinator will teach patients about diabetes and also ensure self-blood pressure monitoring, encourage medication adherence and monitoring of medications. The community team base care coordinator will work with patient regarding follow-up care and work as a team-based care management member which may include physician, pharmacist, social workers, dieticians, etc.

Evaluation of Community TBC

The community TBC is a quality improvement demonstration program. Evaluation

components such as process and outcome evaluation measures will be developed as the project evolves. Figure 2 shows the logic model for community TBC. We will develop process and outcome indicators for evaluation based on the inputs, processes and outputs.

Figure 2. Community Team-Based Care logic model

Community Team-based Care for People with Uncontrolled Hypertension (HTN)

Aim: To decrease the proportion of persons with uncontrolled hypertension

