

Implementing Evidence Based Treatment of Hypertension

Peter J. Kaboli, MD, MS

CRIISP, Iowa City, IA

BACKGROUND / RATIONALE:

Hypertension is common and readily treatable, yet only less than 40% of patients are adequately treated. Treatment recommendations come from the 2002 Antihypertensive and Lipid-Lowering Treatment to Prevent Heart Attack Trial (ALLHAT), the 2003 7th Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure (JNC-7), and the 1999 VA/DOD Clinical Practice Guidelines for Hypertension. These reports definitely state that thiazide diuretics should be used as first-line therapy for patients with uncomplicated hypertension. The long-term goal of the proposed research is to develop an innovative intervention to implement these recommendations regarding the use of thiazides and improve the blood pressure control of VA primary care patients with hypertension.

OBJECTIVE(S):

The specific aims of the pilot phase were to:

1. Identify modifiable barriers to implementing evidence-based practices for hypertension treatment.
2. Develop a multi-component intervention to rapidly change the current practice of anti-hypertensive therapy in VISN 23, based on our conceptual model.

RESEARCH PLAN:

The long-term goal of the proposed research is to develop an innovative intervention to implement the ALLHAT, JNC-7, and VA/DOD recommendations regarding the use of thiazides for hypertension and improve the blood pressure control of VA primary care patients. The proposed intervention, informed by data gathered during the pilot phase, will be a randomized-controlled clinical intervention trial to improve hypertension management. It will target patients not on JNC-7 recommended thiazide diuretics. The proposed incremental, low-cost strategy will implement evidence-based care by engaging patients to act as agents of change in modifying provider behavior. This study will complement other VA initiatives to implement evidence-based care focussed at the

provider and system levels. If the intervention is successful, it could be applied to other chronic diseases, such as congestive heart failure and diabetes.

METHODS:

This pilot study began with informal focus groups of providers at the Iowa City and Minneapolis VAMCs and affiliated community based outpatient clinics (CBOCs) to discuss the barriers to implementing evidence-based care for hypertension. The literature was reviewed and incorporated. A patient and provider survey instrument were developed with complementary questions in order to gauge both patient and provider attitudes and perceived barriers. Both surveys were pilot tested and revised. Patient surveys were completed by face-to-face interview in the general medicine clinics and providers surveys were sent by email.

FINDINGS / RESULTS:

220 provider surveys were sent and 143 were returned (65%). Key findings include: 96% of providers had heard of the JNC-7 guidelines and 65% were very familiar with the report. Using a 12-question JNC-7 based knowledge survey, VA providers scored 66% correct, compared with a non-VA cohort that scored 71% ($P=.06$). 69% recommended thiazide diuretics for first line treatment, compared to only 18% in a previously published non-VA cohort. 65% of providers overestimated the percentage of patients on JNC-7 concordant therapy and 38% overestimated the percent of patients at their goal blood pressure. 190 hypertensive patients were asked to participate and 187 (98%) completed interviews. Key finding include: Only 51% of patients were at their blood pressure goal, 59% were on JNC-7 guideline concordant therapy, and 37% of patients knew their BP goal. Medication cost emerged as an important factor for patients with 65% stating cost was extremely/very important to them and 27% stated the prescription drug benefit at the VA was the only or main reason they came to the VA.

STATUS:

The pilot phase of this award is completed.

IMPACT:

The results of these surveys dramatically helped to inform the design of a randomized-controlled clinical intervention that was submitted as a Merit Review to the VA 12/05. If effective, the methods proposed will serve as a model for expanding the intervention throughout VA and can be applied to other disease states. The findings, when published, will help to inform policy makers and clinical leadership what barriers and facilitators exist in the management of hypertension.

PUBLICATIONS:

None at this time. We will be preparing manuscripts from the patient and provider surveys for submission to peer reviewed journals.