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Trial of Low And High Intensity Strategies to Maintain Blood Pressure Control

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BACKGROUND/RATIONALE:

In recent years, multidisciplinary strategies, based on the Chronic Care Model, that optimally utilize the skills of different practitioners have been used to overcome barriers to the treatment of HTN and other chronic illnesses. VA / DoD hypertension guidelines note, "If BP continues to be elevated, clinicians should consider management by a pharmacist in the follow-up and adjustment of medications to improve BP goal." This recommendation is based on well-designed controlled trials. However, while pharmacist models of BP control have been shown to be efficacious, studies are limited by small samples and short follow-up (typically 6-12 months). Most importantly, once BP is controlled with such models, current guidelines do not provide recommendations on sustaining long-term BP control.

OBJECTIVE(S):

A major gap in our understanding is how to best sustain the effects of interventions to improve BP control and whether continued intensive interventions are needed or whether patients can be returned to usual care after initial BP control is attained. The 3 specific aims of this proposal are to:

- 1) Compare changes in BP in patients randomized to a long-term pharmacist intervention after an initial 6-month intervention or to a one-time less intense intervention after the initial 6-month intervention;
- 2) Compare antihypertensive medication intensification in the two groups; and
- 3) Compare medication adherence in the two groups.

METHODS:

This four-year study will enroll 400 veterans with poorly controlled HTN into a 6-month high intensity pharmacist-based intervention. Following this period, the study will randomize participants to a continued high intensity intervention or to a one-time patient and provider education intervention (low-intensity) and compare BP in the two groups over a 2-year follow-up period. The high intensity intervention to control and sustain BP will follow VA/DoD guidelines and include: 1) comprehensive medication assessment by the pharmacist; 2) an explicit plan to intensify medications if indicated; 3) strategies to improve medication adherence; and 4) follow-up pharmacist visits to sustain BP control.

BP will be assessed at baseline, 6, 12, 18, 24 and 30 months using a rigorous, standard measurement protocol. The primary outcome measure will be the difference in mean BP between the high and low intensity intervention groups. Secondary endpoints include rates of BP control, medication intensification, medication adherence and knowledge, and self-efficacy.

FINDINGS/RESULTS:

Recruitment for the study concluded September 2011. Of the 103 active patients, to date, who completed the initial 6 month high intensity BP intervention, 62 (60%) had controlled BP after the initial intervention. There are currently no other findings to report.

IMPACT:

The proposed study will provide important insights on the long-term control of BP in patients with HTN. Specifically, the study will determine whether patients with uncontrolled HTN require long-term continued intensive intervention or if such patients can be provided with a less intense intervention and returned to primary care after the initial control of BP. While BP control rates in VHA have increased from 41% in 1999 to 62% in 2003, clinical trials have found that higher control rates can be achieved, but this often requires treatment intensification over time. Such aggressive management is not typical in practice where clinical inertia and patient non-adherence create barriers. Unfortunately, the suboptimal BP control has significant adverse cardiovascular consequences.

There are no additional impacts to report at this time.

PUBLICATIONS:

Conference Presentations

- Carter BL, Demik D, Vander Weg MW, Lundt E, Coffey C, Ardery G. Prediction of the Implementation of the Physician-Pharmacist Collaborative Model Using the Theory of Planned Behavior. Paper presented at: North American Primary Care Research Group Annual Meeting; 2011 Nov 14; Banff, Alberta, Canada.
- Egts S, Baldwin A, Ishani A, Wilson HS, Vander Weg MW, Christensen AJ, Kaboli PJ. Does Patient Role-orientation Predict Patient-initiated Discussions with Providers? Insights from the VA Project to Implement Diuretics (VAPID). Paper presented at: Society of General Internal Medicine Annual Meeting; 2008 Apr 11; Pittsburgh, PA.

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