Depression is a known risk factor for poor prognosis among patients with cardiovascular disease. Numerous biological and behavioral mechanisms have been proposed. However, few studies have investigated the association between depression and “clinical inertia,” or lack of treatment intensification in individuals not at evidence-based goals for care. To address this gap, we assessed whether a diagnosis of depression is associated with clinical inertia in patients with uncontrolled hypertension.

Methods | From February 2011 through September 2013, we enrolled a convenience sample of 28 nontrainee primary care providers (PCPs) (27 physicians and 1 nurse practitioner) and 158 patients with uncontrolled hypertension from 2 inner-city, academic hospital-based primary care clinics.

The institutional review board of Columbia University Medical Center approved the protocol. Participants provided written informed consent. Patients were eligible if they were at least 18 years old, were prescribed 1 or more blood pressure (BP) medications, and had a BP measurement of at least 140/90 mm Hg (or ≥130/80 mm Hg for patients with diabetes mellitus [DM] or with chronic kidney disease) on at least 2 consecutively scheduled visits with their PCP. Exclusion criteria were age older than 80 years and dementia. Clinical inertia was defined as a lack of medication intensification, hypertension specialist referral, or workup for identifiable hypertension despite uncontrolled BP. Depression status was based on PCP documentation in the electronic medical record.

We assessed established predictors of clinical inertia, including age, sex, systolic blood pressure (SBP) measured at the current visit, SBP at the prior visit, number of BP medications, number of medical problems addressed during the visit, DM status, and medication adherence (Morisky Medication Adherence Scale). All measures were either abstracted from the medical record by a physician or, in the case of medication adherence, by interviewing patients following the clinic visit. Multilevel analysis to account for clustering within PCP was used to determine whether depression diagnosis was associated with clinical inertia after adjusting for established predictors of clinical inertia. Sensitivity analyses were performed in which we (1) excluded 36 patients with clinician uncertainty regarding BP control status (ie, documentation of ≥1 BP measurement at home or at the current visit that was controlled), (2) adjusted for PCP documentation of adherence assessment, and (3) excluded patients with DM who had an SBP between 130 and 140 mm Hg. We used SAS statistical software (version 9.3; SAS Institute Inc) for all statistical analyses.

Results | The mean (SD) age of patients was 64.5 (8.8) years; 74.1% were women, 79.1% were Hispanic, 44.9% were diagnosed as having depression, and 61.2% had DM. On average, participants had a prior visit SBP of 158.7 (15.7) mm Hg, current visit SBP of 154.6 (16.7) mm Hg, were taking 2.5 (1.1) BP medications, and had 5.3 (2.3) problems addressed during the visit. Clinical inertia was more common among depressed than nondepressed patients (70% vs 51%; P = .02). Depression diagnosis was associated with clinical inertia in both the adjusted and unadjusted multilevel analyses (relative risk [RR], 1.40; 95% CI, 1.11-1.74; P = .004; adjusted relative risk [ARR], 1.49; 95% CI, 1.06-2.10; P = .02). The relationship remained after excluding those with at least 1 documented home or clinic
SBP measurement below goal (ARR, 1.74; 95% CI, 1.07-2.83; \( P = .03 \)), adjusting for adherence counseling (ARR, 1.49; 95% CI, 1.10-2.04; \( P = .01 \)) and excluding patients with DM with SBP 140 mm Hg or lower (ARR, 1.49; 95% CI, 0.99-2.23; \( P = .06 \)).

Discussion | Among patients with uncontrolled hypertension, clinical inertia was more likely in those with a diagnosis of depression. Hence, clinical inertia may be 1 mechanism by which depressed patients have worse cardiovascular outcomes. Research has shown that patients with mental illness receive less intensive medical care, such as coronary revascularization; our study extends this literature by demonstrating differences in clinician behavior with respect to cardiovascular risk factor management in this population. Future studies should explore the underlying processes that affect clinician treatment practices when managing a patient with depression. In the meantime, PCPs should be cautious about undertreating cardiovascular risk factors among patients identified as having depression.

Nathalie Moise, MD
Karina W. Davidson, PhD
William Chaplin, PhD
Steven Shea, MD, MS
Ian Kronish, MD, MPH

Author Affiliations: Center for Behavioral and Cardiovascular Health, Division of General Medicine, Columbia University Medical Center, New York, New York (Moise, Davidson, Chaplin, Shea, Kronish); Department of Psychiatry, Columbia University Medical Center, New York, New York (Davidson); Department of Psychology, St John’s University, Queens, New York (Chaplin); Department of Epidemiology, Joseph Mailman School of Public Health, Columbia University, New York, New York (Shea).

Corresponding Author: Nathalie Moise, MD, Division of General Medicine, Columbia University Medical Center, 622 W 168th St, PH9 Center, Room 320, New York, NY 10032 (nm2562@cumc.columbia.edu).


Author Contributions: Dr Moise had full access to all the data in the study and takes responsibility for the integrity of the data and the accuracy of the data analysis.

Study concept and design: Moise, Davidson, Kronish.

Acquisition of data: Moise, Shea, Kronish.

Analysis and interpretation of data: Moise, Chaplin, Shea, Kronish.

Drafting of the manuscript: Moise, Kronish.

Critical revision of the manuscript for important intellectual content: All authors.

Statistical analysis: Moise, Chaplin, Shea, Kronish.

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Editor’s Note

Multimorbidity, Guidelines, and Clinical Inertia

Many guidelines and performance measures for chronic conditions, such as hypertension, seem to assume that patients come neatly packaged with only 1 problem. But patients’ conditions are often more complicated, and many patients have more than 1 condition. We know little about the impact that this multimorbidity has on care for common conditions like hypertension.

The Research Letter by Moise et al is novel because it clearly demonstrates that co-occurrence of depression has a significant impact on the treatment of hypertension. Specifically, patients who had a blood pressure higher than 140/90 mm Hg were less likely to have their hypertension medications intensified if they also had depression. Moise et al refer to this as clinical inertia. But is clinical inertia always bad? The answer is not clear.

In some cases, clinicians may have thought that their patients’ depression was more pressing than their hypertension. Especially if the blood pressure elevation was modest, over the long-term, management of the hypertension may be best optimized by first managing depression. When a patient has multiple problems, it is challenging to prioritize what needs to be done “this visit” and what is best managed over a longer time horizon. The study by Moise et al demonstrates that we need to think hard about the best management strategies for patients with multiple medical problems.

Kenneth E. Covinsky, MD

HEALTH CARE REFORM

Headsaches and Neuroimaging: High Utilization and Costs Despite Guidelines

While most headaches are attributable to benign conditions, patients and physicians are often concerned about intracranial pathologic conditions. However, the yield of significant abnormalities on neuroimaging in patients with chronic headaches is 1% to 3%. 1–3 Given the comparable yield in patients without headaches, multiple guidelines have recommended against routine headache neuroimaging, 4–6 and ef-