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Outcomes of Blood Pressure Management in Diabetes Patients with Comorbidities

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BACKGROUND:

Most evidence-based medical guidelines do not take into account the interplay among multiple chronic conditions in many patients, a clinical status particularly common among older adults. Moreover, randomized controlled trials (RCT's) often exclude patients with complex health conditions and/or older age and therefore, information regarding appropriate preventive and therapeutic interventions are lacking for these patients. A particularly important question is the optimization of blood pressure management in patients with type 2 diabetes mellitus, who often have multiple vascular and nonvascular comorbidities. It is possible that in some particularly complex patients, blood pressure may be "over-managed."

OBJECTIVES:

The objective of the proposed research is to investigate predictors, patterns and outcomes of blood pressure (BP) level among patients with diabetes with coexisting health burdens, in order to use this information to optimize existing BP guidelines. We will use a unique linked clinical registry-claims database to investigate, in people with diabetes, the pattern of BP control by comorbidities, assess the relationship between BP and adverse outcomes, and develop guideline prototypes for BP management in diabetes patients with complex health status. We will focus specifically on CAD and general comorbidity burden.

METHODS:

We will analyze data from a clinical, ongoing diabetes registry with over 20000 unique patients since 2005 that is maintained by a large physician group practice, the University of Michigan Faculty Group Practice (UMFGP) and linked to claims. Claims are available for Medicare patients through the Physician Group Practice (PGP) Medicare Demonstration Program at the University of Michigan (UM), and for commercial patients through a UM-owned Managed Care Organization (MCO).