

AMERICAN SOCIETY OF NEPHROLOGY-ASP-JUNIOR DEVELOPMENT AWARD IN GERIATRIC NEPHROLOGY



Award Recipient:

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PROJECT:

CARDIOVASCULAR MEDICATION USE IN ELDERLY DIALYSIS PATIENTS

MENTORSHIP TEAM:

JERRY AVORN, MD GARY C. CURHAN, MD, SCD

Being selected as a T. Franklin Williams Scholar will enable me to study an important population of elderly patients, those with end-stage renal disease (ESRD). More than 350,000 patients undergo renal replacement therapy in the United States with the majority 65 years of age or older. These patients are at particular risk of cardiovascular disease, and 45 percent of all deaths in ESRD patients have been attributed to cardiovascular causes. One correctable component of this problem may be that ESRD patients are less likely to receive or take appropriate medication for such indications. Although prescription drug use is high in the ESRD population, studies of such drug use in these vulnerable patients are scarce.

The proposed work will aim to fill this void. We will investigate cardiovascular prescription drug use in elderly ESRD patients using data from the New Jersey Pharmaceutical Assistance for the Aged and Disabled (PAAD), New Jersey Medicaid, and the Pennsylvania Pharmaceutical Assistance Contract for the Elderly (PACE) systems. Through the PAAD and PACE programs, both states offer coverage of prescription drugs to state residents over 65, making detailed prescription drug information available for study. We can link these data to information on all physician visits, hospitalizations, procedures, and diagnoses recorded in the complete Medicare utilization files for these patients, taking care to anonymize the data to protect patient privacy.

We will evaluate use of specific recommended medications in ESRD patients following acute myocardial infarction (MI): lipid-lowering drugs, beta-blockers, and angiotensin converting enzyme inhibitors. We will:

1. Describe predictors of initial prescribing of these drugs post-MI.

2. Describe patterns of such drug use following discharge after MI.
3. Assess longitudinal use and patient adherence with such regimens.
4. Identify patients at greatest risk for poor adherence to such long-term medications.

Thorough study of the practice patterns will likely reveal substantial undertreatment of elderly ESRD patients with medications of well-established efficacy as well as poor adherence with these treatments once initiated. Defining such shortfalls should motivate and guide targeted interventions to improve drug therapy in these vulnerable patients.

My path to academic medicine has led me through training in general internal medicine and nephrology. Next, I received a master's level education in health policy and management and scientific training in epidemiology and biostatistics at the doctoral level at the Harvard School of Public Health. My work as junior faculty in the division of pharmacoepidemiology and pharmacoconomics at Brigham and Women's Hospital has provided valuable interdisciplinary experience in conducting outcomes research using large claims databases. The present funding provided through the American Society of Nephrology-ASP- Junior Development Award in Geriatric Nephrology will enable me to conduct high-quality, high-impact pharmacoepidemiological research in elderly patients with kidney disease. Successful completion of the proposed work will assist me in expanding that scientific paradigm to other drug-related research questions in the field and will help me build an independent research career in geriatric nephrology.

