Understanding the Bidirectional Relationship Between Depression and Heart Failure

Original Principal Investigator: **Pathak, J. (Currently Bobo, William V.)**
Institution/Partners: **Mayo Clinic Rochester**
Project Period: **06/01/14-11/30/15**
Grant Number: **R 0 1 H S 0 23 0 7 7 - 01**

Description

As the U.S. population is disproportionately aging, a specific research area that has garnered recent attention is the link between major depressive disorder (MDD) and heart failure (HF) since both are highly prevalent conditions and also highly comorbid. Prevalence of MDD among HF patients ranges from 11% to 25% in outpatients and 35% to 70% in hospitalized patients. Further, comorbid depressive disorder is a predictor of mortality, re-hospitalization and worsening HF. Despite this, appropriate management of comorbid depression in HF patients remains under-appreciated in routine clinical care. While several studies have examined the prevalence of depression in HF, and a few have also investigated the incidence of depression, the "temporal relationship" between incident MDD and incident HF is undetermined and under-studied.

Specific Aims

1. Understand the bidirectional risk association between MDD and HF.
2. Understand the role of coexisting conditions in MDD and HF.
3. Evaluate patient outcomes and healthcare utilization for MDD and HF.

Main Objective

Investigate the temporal relationship between MDD and HF to understand whether incident MDD is a risk factor for incident HF, a consequence of incident HF, and/or a comorbid factor that exacerbates HF, or vice versa.

Chronic Conditions Considered

MDD and HF

Study Design, Data Sources & Sample Size

Electronic health record (EHR) systems and billing and claims data at Mayo Clinic

Strategies Addressed from the HHS Strategic Framework on Multiple Chronic Conditions

4.B. Understand the epidemiology of multiple chronic conditions.

4.C. Increase clinical health research.