

## Treatment Burden in Complex Older Patients as a Target for Intervention

Principal Investigator: Cynthia M. Boyd, MD, MPH  
Institution/Partners: Johns Hopkins University  
Project Period: 08/01/08 – 07/31/11  
Grant Number: R21 HS17650-01

### Description

Understanding the treatment burden experienced by patients and their caregivers is essential to delivering medical care that is patient-centered and based on clinical guidelines. This study explored the association between health status and treatment burden among patients with multiple chronic conditions and determined whether patient engagement modified this relationship. It also examined how treatment burden is related to quality of life and quality of care. Results from this study will help develop an intervention for assessing, reducing, and managing treatment burden for patients with multiple chronic conditions and their caregivers.

### Specific Aims

1. Examine how different patterns of co-existing conditions are associated with treatment burden.
2. Determine the association between presence and magnitude of treatment burden, and a) physical and mental-health related quality of life, and b) patient-reported quality of chronic illness care.
3. Assess the relationship between a) changes in patient activation and changes in treatment burden, and b) changes in treatment burden and changes in physical and mental health-related quality of life, and c) changes in treatment burden and changes in the ratings of patient-reported quality of chronic illness care over 18 months.

### Findings

- Difficulty with health care management tasks was associated with lower quality of life and worse patient-reported quality of care. Greater difficulty with these tasks also was associated with increased strain and depression for caregivers.
- In longitudinal analysis, increasing patient activation was associated with declining difficulty with health care management tasks over time. Increasing difficulty with health care management tasks over

### Main Objective

Explore the association between health status and treatment burden among patients with multiple chronic conditions; and to examine how treatment burden is related to quality of life and quality of care.

### Chronic Conditions Considered

Focused on burden of chronic disease; chronic conditions not specified.

### Preventive Service Considered

This project did not address a specific clinical preventive service.

### Study Design, Data Sources & Sample Size

Cross-sectional survey of 308 caregivers and 904 patients enrolled in an ongoing cluster-randomized controlled trial. Longitudinal cohort study.

### Strategies Addressed from the HHS Strategic Framework on Multiple Chronic Conditions

- 1.B. Define appropriate health care outcomes for individuals with multiple chronic conditions
- 4.B. Understand the epidemiology of multiple chronic conditions
- 4.C. Increase clinical research

## Treatment Burden in Complex Older Patients as a Target for Intervention (Continued)

time was associated with declining mental and physical health and patient-reported quality of chronic illness care.

- Heart failure was associated with a synergistic increase in the difficulty patients experience in carrying out health care management tasks, above and beyond the effects of other chronic conditions, such as diabetes or arthritis.

### Implications

Treatment burden is a potentially important but little understood aspect of quality of life and quality of care for complex patients. Assessing, reducing, and managing treatment burden to improve patient-centered decision-making may improve adherence, physician-patient communication, quality of life, and quality of care.

### Publications (as of September 2013)

Boyd CM, Wolff JL, Giovannetti E, Reider L, Weiss C, Xue Q, Leff B, Boulton C, Hughes T, Rand C. Health care task difficulty among older adults with multimorbidity. *Medical Care*. In Press, 2013.

Giovannetti ER, Wolff JR, Xue Q, Weiss CO, Leff B, Boulton C, Hughes T, Boyd CM. Difficulty assisting with health care tasks among caregivers of multimorbid older adults. *JGIM*. Jan 2011; 27(1): 1-8. Epub 27 Aug 2011.

### Posters and Presentations

Courtin S, Hughes T, Giovannetti E, Wolff J, Rand C, Boyd C. Experiences of treatment burden in community-dwelling multimorbid older adults and caregivers. Poster presented at: American Geriatrics Society Annual Scientific Meeting; 2011 May 11-14; National Harbor, Maryland.

Giovannetti E, Xue Q, Reider L, Wolff J, Hughes T, Weiss C, Leff B, Rand C, Boyd C. Factors associated with change in health care task difficulty among multimorbid older adults. Poster presented at: American Geriatrics Society Annual Scientific Meeting; 2011 May 11-14; National Harbor, Maryland.

Boyd C, Wolff J, Giovannetti E, et al. Difficulty with health care management tasks among multimorbid older adults. Poster presented at: American Geriatrics Society Annual Scientific Meeting; 2010 May 12-15; Orlando, Florida.

Giovannetti E, Wolff J, Reider L, Xue Q, Weiss C, Leff B, Boulton C, Hughes T, Boyd C. Difficulty with health care tasks among caregivers of multimorbid older adults. Poster presented at: Annual Scientific Meeting of the American Geriatrics Society; 2010 May 12-15; Orlando, Florida.