

**American Geriatrics Society**  
**Support provided by: National Institutes of Health**  
**Research Agenda for Comorbid Disease & Multiple Morbidity in an Aging Society**  
Second in the Annual R13 Conference Series, "From Bedside to Bench"

**March 2-4, 2005**

**Peachtree Westin Hotel**

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Comorbid diseases or multiple morbidity confront most clinicians in their everyday practice with older patients, while conceptual and empirical work on these problems has lagged. "Comorbidity" has been defined "any distinct additional clinical entity that has existed or that may occur during the clinical course of a patient who has the index disease under study" (Feinstein, 1970). Alternatively, multiple morbidity may be conceived of as the number of chronic conditions, their severity, and their effects on physiological capacity. There are important conceptual linkages between multiple morbidity and other processes important in elderly populations, such as disablement and frailty. Still, much research excludes older subjects with significant comorbidity or multiple diseases. As a result, very basic questions currently do not have clear answers. How can we better define and measure comorbidity and multiple morbidity? How are they related to aging? These and related questions will be addressed by a select group of expert clinicians and scientists.

**Conference Organizers**

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**Linda Fried, MD, MPH**, Director, Center on Aging & Health, Professor, Medicine, Epidemiology and Health Policy, The Johns Hopkins Medical Institutions

**Jack Gurlanik, MD, PhD**, Senior Investigator, Chief, Epidemiology and Demography Section, Laboratory of Epidemiology, Demography, and Biometry, National Institute on Aging

**Alison Moore, MD, MPH**, Associate Professor, Division of Geriatrics, UCLA School of Medicine

**Cynthia Mulrow, MD, MSc**, Deputy Editor, Annals of Internal Medicine

**Susan Nayfield, MD**, Geriatrics Branch Chief, Geriatrics & Clinical Gerontology Program, NIA

**Rebecca A. Silliman, MD PhD**, Chief, Geriatrics Section, Boston University

**Stephanie Studenski, MD**, Professor of Medicine, University of Pittsburgh

**Darryl Wieland, PhD, MPH**, Division of Geriatrics Services, Palmetto Health

**Attendees**

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**Joseph Agostini, MD**, *Yale University School of Medicine; VA Connecticut Healthcare System, West Haven, CT*

**Ali Ahmed, MD, MPH**, *Assistant Professor of Medicine and Epidemiology, University of Alabama, Birmingham*

**Dan Berlowitz, MD, MPH**, *Director, Center for Health Quality, Outcomes & Economic Research, Bedford, MA*

**Caroline Blaum, MD**, *Assoc Prof of Internal Medicine/Geriatrics, Univ. of Michigan Med School, Ann Arbor, MI*

**Cynthia Boyd, MD**, *Instructor, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD*

**Becky Briesacher, PhD**, *Assistant Professor, University of Massachusetts School of Medicine*

**Matteo Cesari, MD, PhD**, *Sticht Center on Aging, Wake Forest University School of Medicine, Winston Salem, NC*

**Christine Cigolle, MD, MPH**, *Institute of Gerontology, University of Michigan, Ann Arbor, MI*

**Yohannes Endeshaw, MD**, *Assistant Professor, Department of Medicine, Emory University School of Medicine*

**Martine Extermann, MD**, *Associate Professor of Oncology and Medicine University of South Florida, Tampa*

**Linda Fried, MD, MPH**, *Director, Center on Aging & Health, Professor, Medicine, Epidemiology and Health Policy, The Johns Hopkins Medical Institutions, Baltimore, MD*

**Jack Guralnik, MD, PhD**, *Senior Investigator, Chief, Epidemiology and Demography Section Laboratory of Epidemiology, Demography, and Biometry, National Institute on Aging, Bethesda, MD*

**Jeff Halter, MD**, *Director, Geriatrics Center, University of Michigan, Ann Arbor, MI*

**Susan Hardy, MD**, *Geriatric Medicine, Yale University School of Medicine, New Haven, CT*

**Tamara Harris, MD**, *National Institute on Aging*

**Amy Justice, MD, PhD**, *Section Chief, General Internal Medicine, West Haven VA Health System, West Haven, CT*

**Ira Katz, MD, PhD**, *Professor, Department of Psychiatry, Philadelphia, PA*

**Arun Karlamangla, MD, PhD**, *Asst Prof Geriatrics, Dept of Medicine, University of California, Los Angeles, CA*  
**Didi Kreigsmann, MD, PhD**, *Nursing Home Slotervaart, Amsterdam*  
**Timothy Lash, DSc, MPH**, *Assistant Professor of Epidemiology and Medicine, Boston University, Boston, MA*  
**Joseph LeMaster, MD, MPH**, *Asst Profr of Family & Community Medicine, University of Missouri-Columbia*  
**Heather McDonald, PhD**, *Associate Editor, Science's SAGE KE, Arlington, VA*  
**Alison Moore, MD, MPH**, *Associate Professor, UCLA Division of Geriatrics, Los Angeles, CA*  
**Cindy Mulrow, MD**, *Deputy Editor, Annals of Internal Medicine, San Antonio, TX*  
**Aanand Naik, MD**, *Houston Center for Quality of Care & Utilization Studies, Baylor College of Medicine, TX*  
**Susan Nayfield, MD**, *Geriatrics, National Institute on Aging, Bethesda, MD*  
**Anne Newman, MD, MPH**, *Assoc Prof of Medicine Division of Geriatric Medicine University of Pittsburgh, PA*  
**Kushang Patel, PhD**, *Laboratory of Epidemiology, Demography, and Biometry National Institute on Aging*  
**David B. Reuben, MD**, *Director, Geriatric Medicine & Gerontology, UCLA School of Medicine, Los Angeles, CA*  
**Christine Ritchie, MD**, *Center for Palliative Care University of Alabama at Birmingham, AL*  
**Joan Rogers, PhD**, *Professor of Occupational Therapy and Nursing, University of Pittsburgh, PA*  
**Judy Salerno, MD, MS**, *Deputy Director, National Institute on Aging, Bethesda, MD*  
**William Satariano, PhD**, *Professor of Epidemiology, University of California at Berkeley, CA*  
**Cheryl Schraeder, RN, PhD**, *Health Systems Research Center, Mahomet, IL*  
**Rebecca Silliman, MD, PhD**, *Prof of Med & Public Health; Chief, Geriatrics Section, Boston University, MA*  
**Jeffrey Silverstein, MD**, *Mount Sinai School of Medicine, West Nyack, NY*  
**Stephanie Studenski, MD, MPH**, *Professor, Department of Medicine, University of Pittsburgh, Pittsburgh, PA*  
**Mary Tinetti, MD**, *Professor of Medicine, Epidemiology & Public Health, Yale University, New Haven, CT*  
**Louise Walter, MD**, *Assistant Professor of Medicine Division of Geriatrics, University of California San Francisco*  
**Heather Whitson, MD**, *Duke University Medical Center, Durham, NC*  
**G. Darryl Wieland, PhD, MPH**, *Prof/Research Director, Palmetto Richland Geriatrics Services, Columbia, SC*  
**Jennifer Wolff, PhD**, *Assitant Professor, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD*  
**Rosemary Yancik, PhD**, *National Institute on Aging, Geriatrics and Clinical Gerontology, Bethesda, MD*

#### **American Geriatrics Society Staff**

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**Jill Epstein**, *Vice President, Operations, Governance and Communications, New York, NY*  
**Julie Pestana**, *Manager, Operations, Governance and Communications, New York, NY*

Wednesday, March 2, 2005

Augusta Rooms I & II Seventh Floor

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(5:30-8:30pm)

The conference will begin with an evening dinner and after-dinner speakers.

Welcoming remarks: **Darryl Wieland, PhD, MPH**

A brief perspective on the conference topic, and introduction of Dr. Fried

(After-dinner presentation)

Comorbidity, Frailty, and Disability

Speaker: **Linda Fried, MD**

Goal and content: Develop how multiple morbidity is related to the development of frailty and subsequent disability in older patients, and how better understanding of the linkages may result in improvements in geriatric care.

Thursday, March 3, 2005

Room: International D Sixth Floor

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**MORNING SESSION - Researching Co-morbid Disease and Multiple Morbidity in an Aging Society: Reports from the NIA Comorbidity Taskforce.** <sup>1</sup>  
(20-minute talks based on the TF commissioned reports)

(8:00-8:15am)

Overview of the Taskforce: Introduction of the Session

Speaker: **David Reuben, MD**

*Goal and content:* Provide a brief overview of the work of the NIA Comorbidity Taskforce as context for the session's presentations that are based upon papers commissioned by NIA from the presenters.

(8:15-8:35am)

Classifying Severity of Chronic Disease: The necessity and the challenges.

Speaker: **Cynthia Boyd, MD**

*Goal and content:* The goal is to discuss how severity of individual diseases is classified, and the implications for research and clinical practice with older adults with comorbidity.

(8:35-8:55am)

The Nosology of Multiple Diseases, Impairments, Conditions.

Speaker: **Arun Karlamangla, MD, PhD**

*Goal and content:* Older adults generally have multiple medical problems as well as sub-clinical changes in several physiologic systems. This paper presents a framework for considering comorbid processes and diseases that will facilitate research and help clinicians caring for older adults.

(8:55-9:15am)

Comorbidity Measurement, Measurement Error, and Analytic Strategies

Speakers: **Rebecca A. Silliman, MD, PhD** and **Timothy L. Lash, DSc, MPH**

*Goal and content:* To identify the strengths and weaknesses of current approaches to comorbidity measurement, including data sources, and to describe analytic strategies for dealing with measurement error.

(9:15-9:35am)

Data Sources Relevant to Comorbidity and Aging Research

Speaker: **Martine Extermann, MD**

*Goal and content:* Provide researchers with an overview of the type of data sources available, with their strengths and drawbacks

(9:35-10:30am) *Audience Questions and Discussion*

~Break~

Thursday, March 3, 2005 Cont'd

Room: International D

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**LATE MORNING SESSION - Researching Co-morbid Disease and Multiple Morbidity in an Aging Society: Results from the Longitudinal Aging Study Amsterdam.**

(10:50-11:30am) Influence of comorbidity on changes in functioning among community-dwelling elderly people

Speaker: **DiDi Kriegsman, MD, PhD**

*Goal and content:* The presentation will provide a summary of the longitudinal analyses on the influence of comorbidity on physical, cognitive and emotional functioning among participants in the Longitudinal Aging Study Amsterdam.

(11:30-12:00pm)

*Audience Questions and Discussion*

(12:00-1:30pm)

Lunch

Room: Vinings II Sixth Floor

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**AFTERNOON SESSION - Comorbid Conditions in Relation to Specific Index Conditions in Aging Clinical Populations: What do we know? What is missing?**

(1:35-1:45pm)

Overview of and Introduction to Session: **Stephanie Studenski, MD**

(1:45-2:15pm)

Overview of the Veterans Aging Cohort Study-Aging with HIV

Speaker: **Amy Justice, MD, PhD**

*Goal and Content:* The talk will provide a summary of the work of VACS group to date. Dr. Justice will present original data on differences in co-occurrence of medical conditions/ impairments/ disease between aging HIV-positive and HIV-negative populations.

(2:15-2:45pm)

Complexities of the Co-occurrence of Late-Life Depression and Medical Conditions in Elderly Patients

Speaker: **Ira Katz, MD, PhD**

*Goal and content:* To review the evidence base demonstrating the increases in morbidity, disability, and mortality that arise from the interactions between depression and the other medical conditions that are common in late life; and to present examples of both physiological and behavioral mechanisms that could account for these effects.

(2:45-3:15pm)

Risks of Alcohol Use and Comorbidity

Speaker: **Alison Moore, MD, MPH**

*Goal and content:* To better understand the risks and benefits of alcohol use on health-related outcomes when one considers comorbidity. Dr. Moore will review the risks and benefits of alcohol use and describe an assessment of these risks that includes consideration of both specific amounts of alcohol use and specific comorbidity. She will present data demonstrating mortality risks of alcohol use when combined with specific comorbidity and contrast this with data on mortality risks of alcohol without consideration of comorbidity.

~Break~

(3:30-4:00pm)

The Clinical Epidemiology of Comorbidity in Aging Patients: Findings and Insights from Geriatric Oncology

Speaker: **William A. Satariano, PhD, MPH**

*Goal and content:* To provide an overview of research methods and findings on the effects of comorbidity on clinical and public health outcomes among older cancer patients. Special attention will be given to the contributions of research in this area for the general study of the causes and consequences of comorbidity among older patients.

(4:00-4:30pm)

Cardiovascular Disease and Comorbidity in Aging Patients.

Speaker: **Anne Newman, MD**

*Goal and content:* To provide an overview of research on the relationship of cardiovascular disease to the aging process, with a focus on the relationship of subclinical disease (assessed by non-invasive testing) to decline in physical and cognitive function and frailty.

(4:30-5:00pm)

Diabetes and Comorbid Conditions in Aging Patients

Speaker: **Caroline Blaum, MD**

*Goal and content:* The metabolic syndrome and type 2 diabetes lead to many comorbidities, but research suggests that diabetes-related mobility disability is independent of its major comorbidities. The goal of this presentation is to explore how comorbidities influence the association of the metabolic syndrome and type 2 diabetes with frailty and

selected disability outcomes. Such research can begin to evaluate the hypothesis that frailty is a consequence of comorbidity.

(5:00-6:00pm)

*Discussion*

Friday, March 4, 2005

Room: International D *Sixth Floor*

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**MORNING SESSION - The Social Burden of Multiple Morbidity: Broader Views.**

(8:30-8:45am)

Introduction to Session: **G. Darryl Wieland, PhD, MPH**

(8:45-9:15am)

Multiple Morbidity and Service Utilization in the VA System

Speaker: **Dan Berlowitz, MD, MPH**

*Goal and content:* To describe existing case-mix measures, such as ACGs and DCGs, that rely on administrative data; to demonstrate how these case-mix systems have been utilized to predict clinical and resource outcomes; and to describe how these measures perform in describing service utilization in the VA.

(9:15-9:45am)

Multiple Morbidity and the Medicare Program: Prevalence, Costs, and Opportunities for Improvement

Speaker: **Jennifer Wolff, PhD**

*Goal and content:* To broadly describe Medicare's chronic care imperative, to outline policy issues surrounding high quality medical care for individuals with chronic disease and to touch on key chronic care improvement initiatives.

(9:45-10:00am)

*Questions/General Discussion*

~Break~

Friday, March 4, 2005 Cont'd

Room: International D

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**LATE MORNING SESSION - Toward a Research Agenda on Comorbid Disease and Multiple Morbidity in an Aging Society: Posing and Answering Key Questions.**

(10:15-12:15 pm) Smaller Mixed Group Breakouts (facilitated and notes taken by a recorder) - 1 hour

*Goal and content:* The goal will be to generate and refine in each breakout group a number of key questions and issues apropos a co-/multiple morbidity research agenda. The groups will be comprised of a mix of conference speakers and participants, with a balance of NIH/Comorbidity & TF members vs. participants from the field; researchers vs. clinicians; and geriatricians vs. other specialists.

(11:30-12:30pm)

*Lunch*

Room: Vinings II *Sixth Floor*

Recorders from the small groups will report on their discussions during the course of the lunch.

**~CONFERENCE FORMALLY ENDS AT 12:30pm~**

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<sup>1</sup>The following are members of the NIA Comorbidity Taskforce-Harvey Cohen, Bill Ershler, Martine Extermann, Luigi Ferrucci, Linda Fried, Jack Guralnik, Jerry Gurwitz, Evan Hadley, Jeff Halter, Taylor Harden (NIA staff), Bill Hazzard,

Carrie Klabunde, Jeanne Mandelblatt, Wanda McIlwain (NIA Staff), Susan Molchan, Vince Mor, Susan Nayfield, Marco Pahor, Andre Premen, David Reuben, Judy Salerno, Bill Satariano, Rebecca Silliman, Stephanie Studenski, Mary Tinetti, Claudette Varricchio, Terrie Wetle, Darryl Wieland, Rosemary Yancik