

UI3 AGS/NIA Bench to Bedside Series in Geriatrics

**Sleep, Circadian Rhythms
and Aging:**

**New Avenues for Improving Brain Health,
Physical Health, and Functioning**

*Supported by National Institute on Aging and American Geriatrics Society
Additional support provided by unrestricted educational grants from American
Academy of Sleep Medicine, Pfizer, and Philips-Respironics*

History:

Table 1: General features of previous conferences funded in this series

Grant		Conferences			
Number	PI	Year	Topics	Location	Organizers
AG022361	Fried	2004	Frailty	Baltimore	Fried
		2005	Comorbid Disease and Multiple Morbidity	Atlanta	Fried
		2006	Mental/Physical Activity and Cognition	Phila.	Fillit
AG028230	Studenski	2007	Thinking Moving Feeling	Bethesda	Studenski
		2008	Idiopathic Fatigue and Aging	Bethesda	Alexander/Taffet
		2009	Inflammation and Nutrient Metabolism	Bethesda	Ershler/Sullivan

SPECIAL ARTICLE

The American Geriatrics Society/National Institute on Aging Bedside-to-Bench Conference: Research Agenda on Delirium in Older Adults

AGS/NIA Delirium Conference Writing Group, Planning Committee and Faculty

J Am Geriatr Soc 63:843-852, 2015.

Key words: delirium; Geriatric syndromes; cognition; measurement; pathophysiology; interventions

The American Geriatrics Society, with support from the National Institute on Aging and the John A. Hartford Foundation, held its seventh Bedside-to-Bench research conference, entitled "Delirium in Older Adults: Finding Order in the Disorder" on February 9-11, 2014, to provide participants with opportunities to learn about cutting-edge research developments, draft recommendations for future research involving translational efforts, and opportunities to network with colleagues and leaders in the field. This meeting was the first of three conferences that will address delirium, sleep disorders, and voiding difficulties and urinary incontinence, emphasizing, whenever possible, the relationships and potentially shared clinical and pathophysiological features between these common geriatric syndromes (Figure 1).

BACKGROUND

Delirium can be thought of as acute brain failure that occurs when stressors exceed the brain's homeostatic reserve (Figure 2). Celsus initially described delirium in the 1st century CE (c. 47 CE, Aulus Cornelius Celsus, *De Medicina*, 2, 728), but little in the way of progress was made until the early 1980s, when delirium first appeared in the

Public Policy, American Geriatrics Society, New York, New York.
AGS/NIA Delirium Conference Writing Group, Planning Committee and Faculty members are listed in Appendix.
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Diagnostic and Statistical Manual of Mental Disorders, Third Edition (DSM III). The most current definition of delirium was recently published in the 5th edition of the DSM and includes a disturbance in attention and awareness; a change in cognition that is not better accounted for by a preexisting, established, or evolving dementia; that the disturbance develops over a short period and tends to fluctuate during the course of the day, and that there is evidence that a direct physiological consequence of a general medical condition, an intoxicating substance, medication use, or more than one etiology causes the disturbance.¹ The DSM definition can be difficult to operationalize or quantify in certain settings. Although a number of approaches exist, the diagnostic approach most commonly used is the Confusion Assessment Method (CAM) four-item diagnostic algorithm, which trained physicians and nurses and other allied health personnel can apply;² the use of the CAM format for delirium evaluation has expanded widely, and valid and reliable forms are now in use in numerous healthcare settings (e.g., 18-CAM for "brief" emergency medicine evaluations,³ p-CAM intensive care unit (ICU) for pediatric use,⁴ and CAM-ICU for intensive care unit use).⁵ Different clinical phenotypes have been described, including the psychomotor variants of hyperactive and hypoactive delirium, frank hallucinations or delusions, and abnormal levels of consciousness. The incidence of delirium varies widely depending upon the population studied, ranging from approximately 15% after some types of elective surgery to as high as 80% in ICU populations.⁶ Delirium is associated with a variety of poor outcomes, including cognitive and functional decline, longer hospital stay, greater healthcare use, and long-term morbidity and mortality. The number of indexed articles in standard bibliographic databases on delirium has increased from fewer than 50 per year in the 1980s to more than 350 per year in 2012, highlighting increased efforts to differentiate delirium from other cognitive disorders and the impetus for developing novel treatment strategies.

DELIRIUM: INTERFACE WITH OTHER GERIATRIC SYNDROMES

The relationships between delirium and other geriatric syndromes such as sleep disorders, voiding dysfunction, and

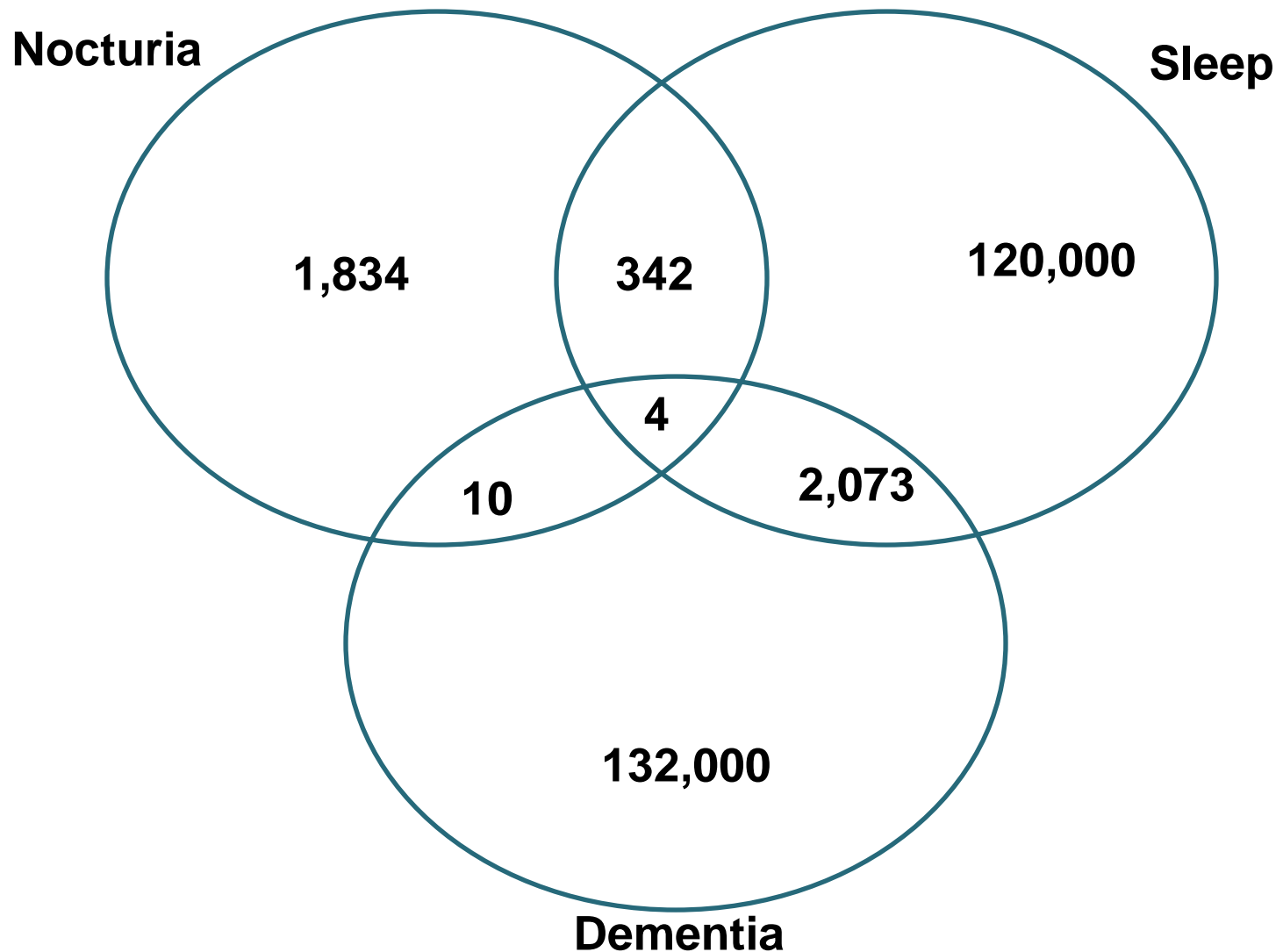


“Revival” of the AGS/NIA Bench to Bedside Series

- AGS Research Committee
- NIA Staff
- Past participants’ survey
- Enthusiasm for participation vs. productivity
- Better integration of the 3 topics
- Overall PI with co-chairs for each conference
- Delirium (Feb 2014)
- Sleep (Oct 2015)
- Incontinence/Voiding Issues (Fall 2016)
- Emphasizing bidirectional relationships, shared risks and mechanisms



A gap between clinical practice and knowledge: PubMed “Hits” in 2013



Thanks:

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- Co-chair for Incontinence Conference: **Kathy Burgio**
- **Julie Robison, PhD** – Director, UConn Center on Aging Evaluative Research Core
- **AGS Staff** – Anna Mikhailovich, Alanna Goldstein, Nancy Lundebjerg and many others



Jeff Silverstein

