

Workshop Agenda

Convened by the Forum on Traumatic Brain Injury, the Forum on Neuroscience and Nervous System Disorders & the Forum on Aging, Disability, and Independence

MONDAY, OCTOBER 21, 2024

Statement of Task (SOT)

A planning committee of the National Academies of Sciences, Engineering, and Medicine will organize and conduct a one-day public workshop to explore unmet research needs in traumatic brain injury (TBI) among adults 65 years and older. Invited presentations and discussions may be designed to:

- Discuss what is known about the incidence of TBI among older adults and reasons behind the dearth of research in this age group.
- Explore critical research gaps regarding post-TBI recovery in older adults, including the existence of diverse clinical phenotypes with different symptom trajectories, comorbidities, and polypharmacy.
- Consider approaches to address the under-representation of older adults in clinical research and datasets for TBI.
- Discuss how to translate emerging clinical research into more robust guidance for TBI treatment and management among older adults.

SESSION I INTRODUCTION

Objectives

- Highlight the unique challenges of managing TBI in older adults, including factors related to diverse clinical phenotypes, the physiology of natural brain aging, polypharmacy, and comorbidities.
- Consider unmet research needs from the first-person lived experience perspective of TBI survivors and advocates.
- Overview what is known about TBI incidence and prevalence in older adults and discuss opportunities to improve data capture and data sharing in population surveillance.

9:00am Welcome and Introductory Remarks

Kristine Yaffe, MD - University of California, San Francisco
David Reuben, MD - University of California, Los Angeles

9:15pm Why TBI in Older Adults Has Unique Considerations

Kristen Dams-O'Connor, PhD - Icahn School of Medicine at Mt. Sinai

9:35am Q&A

9:45am TBI Recovery and Advocacy – Perspectives on Unmet Needs from Lived Experiences

Cindy Daniel - National Concussion Management Center

10:00am Q&A

10:10am Knowledge Gaps in the Neuroepidemiology of Geriatric TBI
Jeremiah Kinsman, PhD - National Highway Traffic Safety Administration
Dana Waltzman, PhD - Centers for Disease Control and Prevention

10:25am Discussion/Q&A

10:35am Break

SESSION II PERSPECTIVES ON ADDRESSING UNMET RESEARCH NEEDS IN ACUTE TBI CARE FOR OLDER ADULTS

Objectives:

- Explore unanswered questions in how to leverage injury prognostication to guide neurocritical care delivery decisions – including imaging orders, neuromonitoring, surgery, triage transfers, and the distribution of health system resources.
- Consider priorities in health systems research to improve engagement, education, and consultation with patient-caregiver dyads.
- Examine research gaps in geriatric TBI populations with preexisting cognitive impairment and dementia.

10:50am Session Introduction
Hibah Awwad, PhD - National Institute of Neurological Disorders and Stroke

10:55am Emergency Medicine in Geriatric TBI: Gaps in Prognostication and the Need for Improved Implementation of Value-based and Patient-Centered Care
Kevin Biese, PhD - University of North Carolina at Chapel Hill

11:05am Neurocritical Care Systems in Geriatric TBI: A Need for Multidisciplinary Teaming in Coordinated Systems of Patient-Centered Care from Triage to Recovery
Neha Dangayach, MD - Icahn School of Medicine at Mt. Sinai

11:15am Trajectories of Function in the First Year Post-Injury
Raquel Gardner, MD - Chaim Sheba Medical Center at Tel HaShomer

11:25am Discussion/Q&A

12:00pm Catered Lunch

1:00pm Halftime Touchpoint
Rachel Lazarus, PhD - AARP

SESSION III PERSPECTIVES ON ADDRESSING UNMET RESEARCH NEEDS IN POST-ACUTE TBI CARE FOR OLDER ADULTS

Objectives:

- Consider unaddressed challenges in geriatric TBI care from the perspective of caregivers.
- Explore new approaches to integrate patient priorities and outcome goals into clinical decision-making.

Approaches to Address Unmet Research Needs in Traumatic Brain Injury Among Older Adults: A Workshop

- Explore research gaps in understanding how bio-psycho-socio-ecological factors affect outcomes after TBI, highlighting post-TBI dementia as an example.
- Examine knowledge and implementation gaps for addressing post-acute care quality and continuity, and consider research opportunities in home health and outpatient rehabilitation.
- Consider research opportunities to promote healthy brain aging after TBI in older adults given increased risk of neurologic and vascular disorders.

1:15pm Session Introduction

Kristine Yaffe, MD - University of California, San Francisco

1:20pm Qualitative Research on Caregiver Perspectives in Geriatric TBI

Michele Nelson, RN/PhD - University of California, San Francisco

1:35pm Care Models for Integrating Patient-centered and Personalized Goals

Mary Tinetti, MD - Yale University

1:45pm TBI Among Older Adults and Social Determinants of Health

Ernest Barthélemy, MD/MPH - SUNY Downstate Health Sciences University

1:55pm Optimizing Care Transitions and Improving Rehabilitative Outcomes

Monique Pappadis, MeD/PhD - University of Texas, Medical Branch

2:05pm Promoting Brain Health after TBI in Older Adults: Lessons Learned from the Epidemiology of Neurologic and Vascular Outcomes

Andrea Schneider, MD/PhD - University of Pennsylvania

2:20pm Discussion

2:50pm Break

SESSION IV APPROACHES TO REMEDY RESEARCH GAPS AND PROMISING FUTURE DIRECTIONS

Objectives:

- Consider ideas on a forward-looking research agenda to improve TBI care and outcomes in older adults, integrating perspectives from neurology, geriatrics, preclinical science, emergency medicine, and drug development.
- Explore the use of digital tools and wearable technologies to predict and prevent falls in older adults.
- Discuss strategies for improving the inclusion of older adults in TBI clinical trials – such as overcoming barriers to exclusion criteria and increasing accessibility via remote assessments.
- Examine promising future directions, including the use of at-home monitoring, artificial-intelligence enabled tools, biomarkers, and personalized care models to better predict, prevent, and treat TBI in older adults.
- Foster discussions on how to translate current research findings into actionable clinical guidelines and healthcare system reforms to improve TBI care delivery for the aging population.

3:10pm Session Introduction

Lisa Barnes, PhD, National Institute on Aging

Approaches to Address Unmet Research Needs in Traumatic
Brain Injury Among Older Adults: A Workshop

- 3:15pm** **Innovative Approaches to TBI Prevention in Older Adults**
David Ganz, MD/PhD - University of California, Los Angeles
- 3:25pm** **Leveraging Digital Technologies to Improve Geriatric TBI Prevention, Research and Care**
Jeffrey Kaye, MD - Oregon Health & Science University
- 3:35pm** **Approaches to Increase Inclusion of Older Adults in Clinical Trials and Datasets**
Laurie Ryan, PhD - National Institute on Aging
- 3:45pm** **Effect of Age and Time Since Injury on TBI Biomarkers in Older Adults**
Frederick Korley, MD/PhD - University of Michigan
- 3:55pm** **Needs and Opportunities in Preclinical Research**
Janna Harris, PhD - Jackson Laboratory
- 4:05pm** **Needs and Opportunities in Therapies Development**
Ramon Diaz-Arrastia, MD/PhD - University of Pennsylvania
- 4:15pm** **Discussion**
- SESSION V** **CONCLUSION**
- 4:45pm** **Closing Remarks by Workshop Co-Chairs**
Kristine Yaffe, MD - University of California, San Francisco
David Reuben, MD - University of California, Los Angeles
- 5:00pm** **Workshop Concludes**

For in-person attendees, an on-site reception will follow from 5:00 to 7:00pm, featuring light appetizers and refreshments