

# FOCUS ON ISOLATED HEAD INJURY UNDERSCORES NEED FOR PROTOCOLIZED GERIATRIC TRAUMATIC BRAIN INJURY CARE

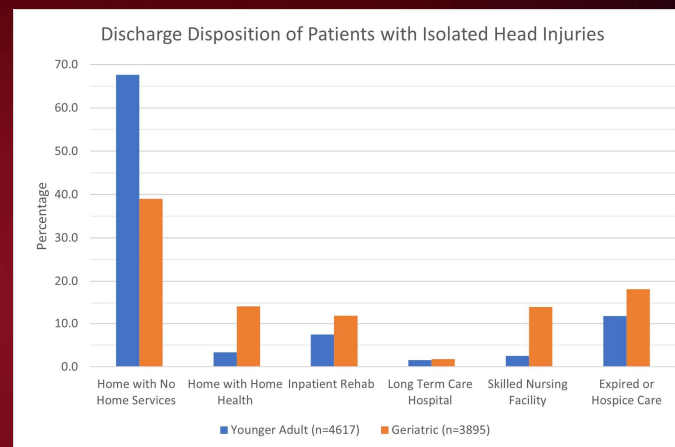
E Mlaver<sup>1</sup>, J Codner<sup>1</sup>, G Solomon<sup>2</sup>, SR Todd<sup>2,3</sup>, ER Benjamin<sup>1,3</sup>

## Objectives

- Trauma Quality Improvement Program (TQIP) national benchmark data for severe TBI outcomes are confounded by morbidity, mortality, and rehabilitation needs caused by extracranial associated injuries.
- Aim: to study the epidemiology and natural history of isolated TBI in geriatric vs non-geriatric patients.

## Methods

- All patients with severe TBI (Head Abbreviated Injury Score, AIS,  $\geq 3$ ) collected from thirteen level 1 and 2 trauma centers in Georgia (Jan '19-Dec '21).
- Isolated TBI: excluded severe extracranial injuries, defined as AIS  $\geq 3$  injuries to the neck, chest, abdomen, pelvis, or extremities.
- Two cohorts: younger (age 15-64) vs geriatric (age  $\geq 65$ ) adults.
- Compared demographics, traumatic mechanism, and discharge disposition.



## Results

- 8512 patients included: 3895 geriatric and 4617 younger adults.
- Geriatric patients were more likely to be on anticoagulants (33.5 vs 4.8%), have dementia (21.8 vs 0.5%), and be functionally dependent at baseline (32.1 vs 3.9%).
- Geriatric patients mostly presented after ground level fall (78.0%); younger patients had varied mechanisms (24.3% GLF, 28.3% MVC, 10.6% assault).
- Geriatric patients utilize more inpatient rehab (11.8 vs 7.5%), home health (14.0 vs 3.3%), and SNFs (13.8 vs 2.6%). Of previously functionally independent geriatric patients (n=2644), 38.7% required post discharge services.
- Mortality difference driven by hospice (8.7 vs 1.5%).

## Conclusions

- Distinct differences in epidemiology and natural history of isolated TBI between geriatric and non-geriatric cohorts.
- Future: **Streamlined protocols** should optimize inpatient management and place an early focus on goals of care discussions, informed by cohort-specific prognosis data.