Optimizing Care Transitions and Improving Rehabilitative Outcomes

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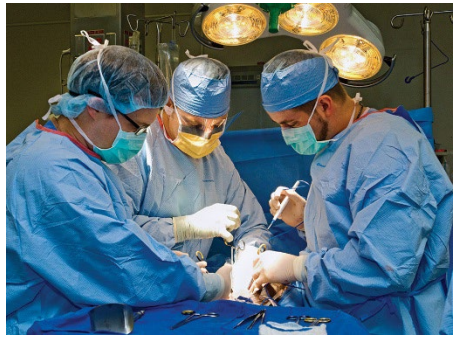
TBI Care Pathways



Emergency

Outpatient

Community

Nursing Home

Acute Care

Rehabilitation

Hospice

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Bailey et al., 2023; DeGuise et al., 2015; De Koning et al., 2015; Flores-Sandoval et al., 2024; Godbolt et al., 2015; Souesme et al., 2022; Kumar et al., 2024

Disparities in access to care

- Older Hispanics and Non-Hispanic Blacks (NHB) with TBI are twice as likely to be discharged home than Older Non-Hispanic Whites (NHW) with TBI.
- Even with the same insurance coverage (i.e., Medicare), Hispanics and NHBs are less likely to receive intensive rehabilitation.
- Older Black patients are 1.5 times less likely and Latino patients are 1.7 times less likely to be discharged to rehabilitation centers when compared with White patients, no matter the level of Trauma Center.
- Other Key factors:
  - Age, Health (Chronic Conditions), Sex, Insurance type (e.g., Medicaid), Education, Financial means, Geographical Location, Availability of Caregiver

Transition to the community

- Compared to younger adults, older adults are more likely to be transferred to post-acute care following initial hospitalization.
- Older adults who are socioeconomically disadvantage, with functional impairment, or live in rural areas are less likely to return to the community.
- Older adults with TBI are more likely to be readmitted, especially those transferred to IRFs or SNFs.

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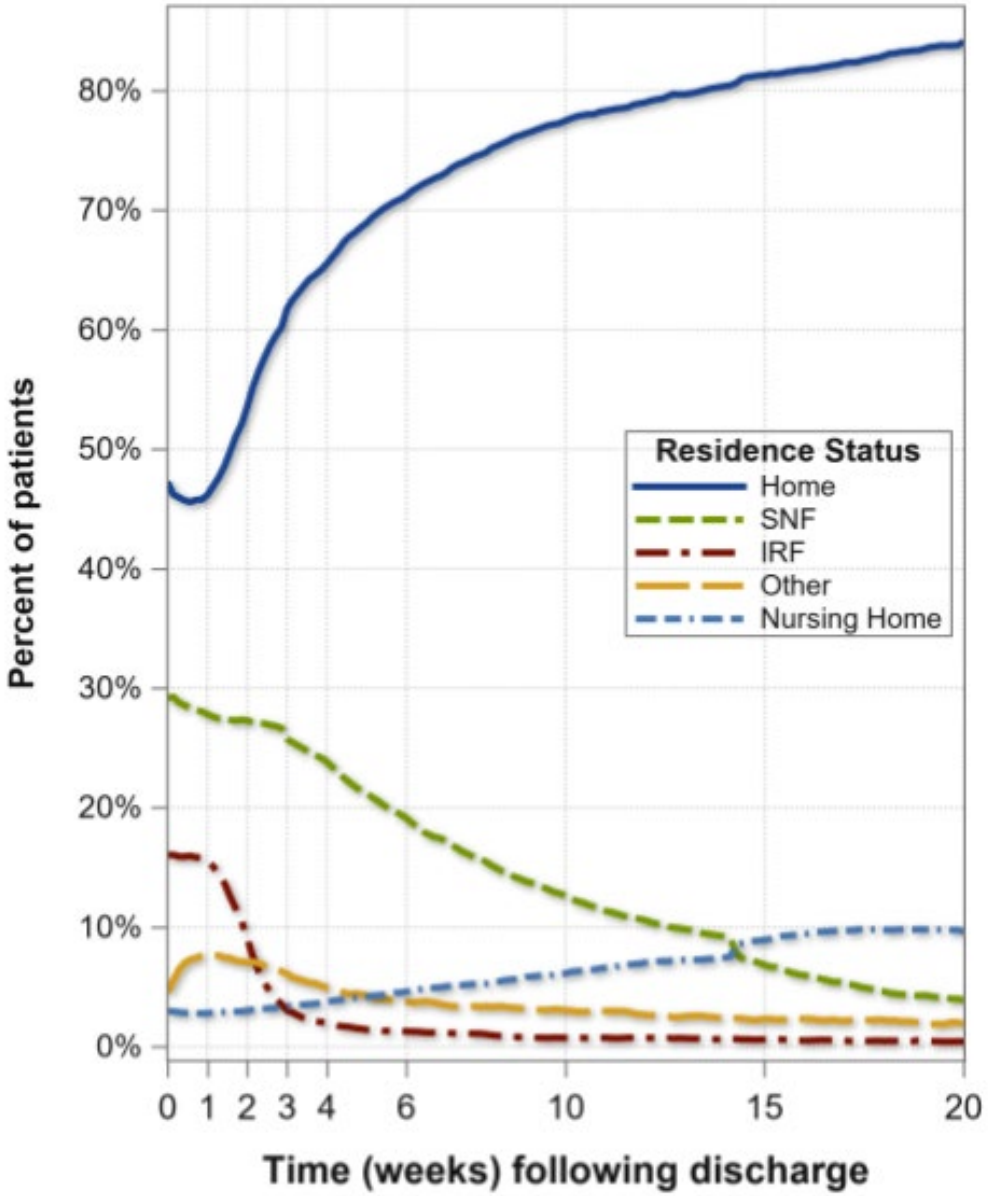
Asemota et al., 2013; Budnick et al., 2017; Chang et al., 2008; Gorman et al., 2020; McQuistion et al., 2016; Meagher et al., 2015; Zarshenas et al., 2019;

Faul et al., 2016; Evans et al., 2021; 2022; Anderson et al., 2021; Li et al., 2018; Daras et al., 2018; Pretz et al., 2017



*12.5% - mortality by 90th day

- 80% of older patients with TBI in Texas, discharged alive and survived, resided in the community at 90 days after hospital discharge.
- Increased likelihood of 90-day community residence: Female sex, Hispanic ethnicity, other race and ethnicity, and **having a PCP**
- Increased risk of 90-day readmission: non-Hispanic Black discharge to SNF or IRF, **having prior PCP**, dual eligibility, and prior TBI diagnosis
- Role of PCP:
  - Home: Reduced risk of ED visits and readmission
  - IRF: Increased ED visits

Pappadis et al., 2023;
Albrecht et al., 2024

REHABILITATION AND TRANSITION TO COMMUNITY

Inpatient Rehabilitation Facility (IRF)

- 64% discharged home
- Key factors:
  - Greater motor and cognitive functioning (+)
  - Living alone (-)
  - Greater chronic conditions (-)
- Facilitators to support transition home from IRF:
  - Patient's health and functional status,
  - Access to health and other services at home
  - Availability of help from a family caregiver

Skilled Nursing Facility (SNF)

- 61.3% discharged home
- Key Factors:
  - Medicaid enrollment, incontinence, decreased independence with ADL, and cognitive impairment (-)
  - race "other" (+)
  - Live in rural communities (-)
- Increased mortality risk
  - Older age
  - Male sex
  - Cognitive, Motor, or Communication impairment

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Byom et al., 2023; Evans et al., 2022; Souesme et al., 2022; Graham et al., 2010; Deutsch et al., 2024; van der Vlegel et al., 2022

Evans et al., 2021; Anderson et al., 2021; Luekel et al., 2018

HOME HEALTH AND OUTPATIENT REHABILITATION

- **Race:**
  - No differences in receipt of HH, but more likely to receive HH therapy compared to NHW beneficiaries.
  - Black beneficiaries were less likely to receive outpatient compared to NHW beneficiaries.
- **Home Health**
  - Hispanic ethnicity, TBI history (-)
  - 75+, Female (+)
  - SNF, IRF, Hospital, NH (+)
  - Comorbidities (+)
  - Areas with lower income and higher unemployment (-)
- **Outpatient**
  - 75+, Black race, Medicaid (-)
  - SNF, Hospital (-)
  - Comorbidities (-)
  - Trauma injury severity (+)
  - Areas with high proportion of uninsured and rural (-)

Albrecht et al., 2023; Onwudebe et al., under review; Aguirre et al., forthcoming

IMPORTANT CONSIDERATIONS FOR RESEARCH

- Long-term monitoring of older adults with TBI needed
- Exploring **facilitators and barriers** to care and care transitions
- Interventions and Opportunities to **age in place** and reduce risk of institutionalization.
- **Supporting Care Partners** through training
- **Care partnerships with primary care and specialty care** are needed to support older adults with TBI.
- Role of **Timing and Continuity of specialty and primary care**
- **Chronic Care Management of persons aging with TBI** to improve health literacy and self-management skills, as well as long-term outcomes.
- **Addressing known disparities in access** to medical and rehabilitation care

THANK YOU!

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