

Timing of rehabilitation initiation in motor vehicle accident trauma and general trauma patients

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BACKGROUND

- In Korea, patients with **traumatic injuries** are covered by **different types of insurance** depending on the mechanism of injury.
- Traumatic injuries resulting from motor vehicle accidents are covered by **automobile insurance (AUI)**, while general traumatic injuries occurring in everyday life are covered by the **National Health Insurance Service (NHIS)**.
- Because of the **indemnity** nature of the AUI, the **medical care utilization** of the AUI patients is different from that of the NHIS patients.

OBJECTIVES

- In this study, we compare the timing of **initiation of post-traumatic rehabilitation** for **severe trauma** patients in the AUI and the NHIS data.

RESULTS

Figure 1. Rehabilitation Implementation Rates Among Patients With Severe Trauma in the NHIS and AUI Data

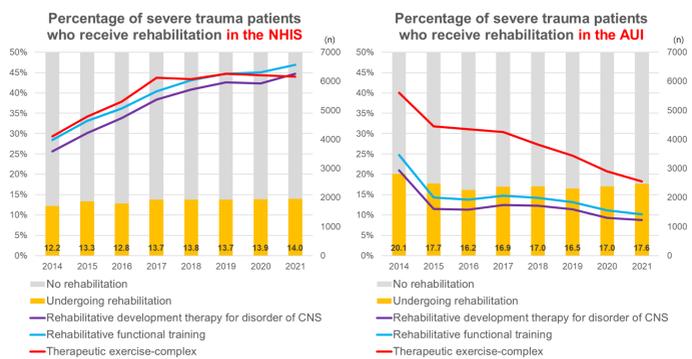
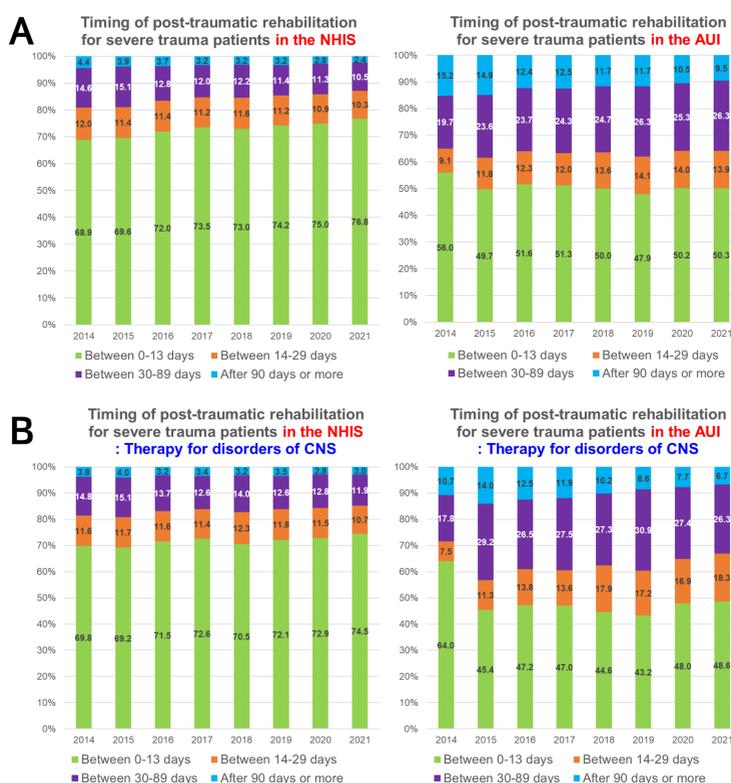


Figure 2. Time to Initiation of Rehabilitation Among Patients With Severe Trauma in the NHIS and AUI data



METHODS & MATERIALS

- Design:** A retrospective population-based study
- Severity of traumatic injuries:**
 - Excess Mortality Ratio-adjusted Injury Severity Score (EMR-ISS)
- Study population:**
 - Hospitalized** patients with traumatic injuries (**S or T codes** in ICD-10) from 2014 to 2021
 - Severely** injured patients (EMR-ISS ≥ 25)
 - A total of 245,674 inpatients in the **AUI data**
 - A total of 613,253 inpatients in the **NHIS data**
- Use of rehabilitation services:**
 - Rehabilitative development therapy for disorder of central nervous system
 - Rehabilitative functional training
 - Therapeutic exercise-complex

Figure 3. Time to Initiation of Rehabilitation Therapy by Admission to Korean Medicine Hospitals in AUI Data

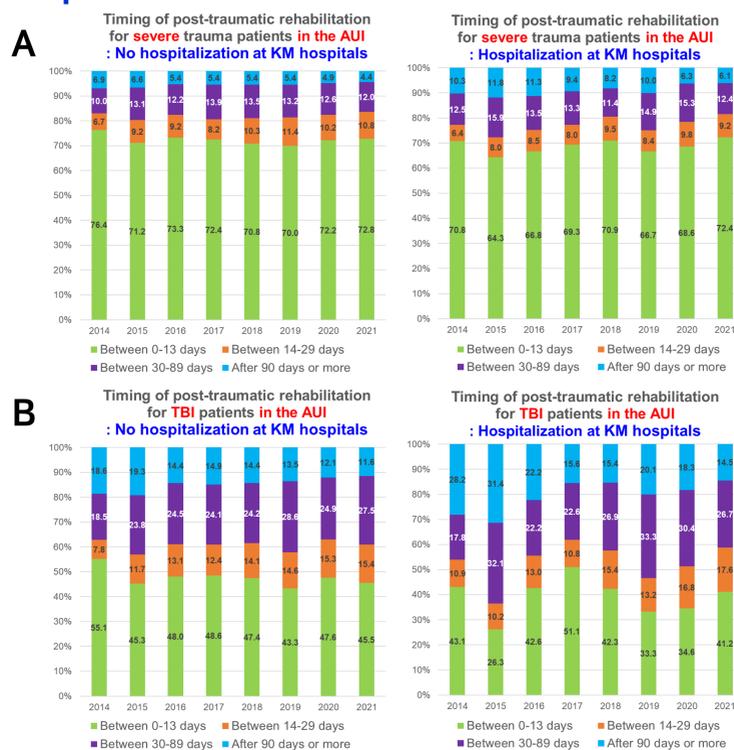
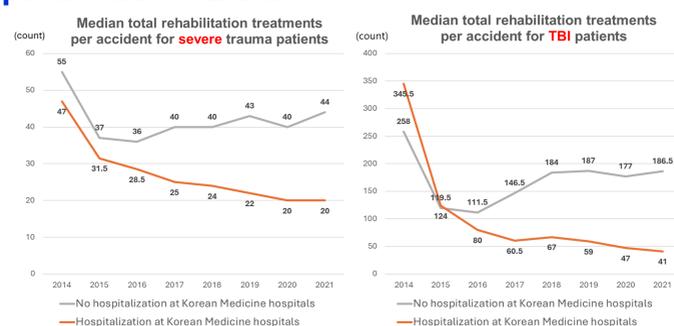


Figure 4. Median Total Amount of Rehabilitation per Accident by Admission to Korean Medicine Hospitals in AUI Data



RESULTS

- Early rehabilitation** after trauma is important to promote patient **recovery** and **prevent disability**.
- Although this study suggested that **hospitalization in a Korean medicine hospital** was one possible factor of **delayed rehabilitation** for motor vehicle accident patients, further research is needed to identify various related factors of this delay.
- Finally, it is necessary to **improve medical policies** that can **accelerate the initiation of rehabilitation** for motor vehicle accident patients.

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