

PHYSICAL AND FUNCTIONAL REHABILITATION AFTER INJURY DURING EMERGENCIES

Findings and recommendations from an operational research project

Rehabilitation from the onset

- Investment and strengthening of early rehabilitation are essential within trauma care, in emergencies.
- Accounting for the diversity in recovery trajectories after injury is crucial when planning and delivering trauma care

Background – beyond saving life and limbs

Every year, over 170 million people are affected by conflict, and another 190 million by disasters. (1)

During emergencies, rehabilitation needs increase (2) due to deterioration of pre-existing health conditions, but also due to newly acquired impairments, such as injury. However, trauma care in humanitarian settings usually focuses on saving life and limbs, and less on ensuring patients

can resume their daily life after injury and participate in society. Rehabilitation is therefore often an after-thought in emergencies, resulting in increased numbers of persons with difficulties in functioning who may face additional challenges to access essential services. Data on functioning and rehabilitation care received after injury, including physical and functional rehabilitation, are lacking in emergencies.

Contextualized data are therefore needed to inform trauma care packages in emergencies.

Key findings

- **Recovery from injury takes time:**
Six months after injury, 55% of all the patients still needed human and/or material assistance (such as assistive products) to perform daily life activities, reported some pain, and had not returned yet to their pre-injury occupation.
- **Patterns of recovery are diverse:**
Patients with visceral injury and/or only soft tissue injury, those with upper limb and trunk injury, and children (6-17y) tended to be independent quicker. Patients independent from human assistance at hospital discharge were more likely to be fully independent three months after injury.
- **Timing of physical and functional rehabilitation matters:**
Patients receiving early (within 48h of hospital admission) and active physical and functional rehabilitation services were more likely to be independent at hospital discharge and three months after injury.
- **Importance of domestic, social and professional roles:**
Being able to move around, carry out self-care and domestic tasks, take up professional roles, and participate in leisure activities were identified by patients as their priorities in the rehabilitation process.



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Research methods

A research project was conducted in partnership with Handicap International, Medecins Sans Frontieres and Karolinska Institutet, funded by Elrha’s Research for Health in Humanitarian Crises programme, with two main -objectives:

- **Describe functioning** of patients, up to six months after injury;
- **Identify factors associated** with their independence in daily life activities, including physical and functional rehabilitation.

The research was a longitudinal observational study:

- **Study participants:** 554 patients after acute injury
- **Sites:** 4 trauma projects run or supported by Medecins Sans Frontieres in Central African Republic, Haiti, Burundi and Cameroon

- **Timeline:** from June 2020 to January 2022
- **Procedure:** Follow-up from hospital admission up to six months after injury
- **Data collected:**
 - **Socio-demographics and injury**
 - **Functioning:** Clinician-rated and Patient-reported outcomes
 - **Trauma care** including physical and functioning rehabilitation (timeliness, intensity, type)

The scientific manuscript is currently in writing.

(1) World Health Organization, 2019, Strengthening rehabilitation in emergencies. Available from: <https://www.who.int/activities/strengthening-rehabilitation-in-emergencies>
(2) Rehabilitation is defined as “a set of interventions designed to optimize functioning in individuals with health conditions or impairments in interaction with their environment” (WHA Resolution “Strengthening rehabilitation in health system”, 2023).

Recommendations for health decision makers and service providers

- **Provide trauma care along the entire continuum** of care, addressing difficulties in functioning identified beyond hospital discharge
 - **Ensure provision of timely and active** rehabilitation interventions, within 48 hours after injury.
- **Provide person-centered trauma care**, accounting for the individual's needs, preferences, and priorities (e.g. fulfilling domestic or professional roles).



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Broader picture

In alignment with the Resolution *“Strengthening rehabilitation in health systems”* adopted at the 76th World Health Assembly (WHA), we call on health decision-makers and service providers to:

1. *“Ensure timely integration of rehabilitation in emergency preparedness and response, including in emergency medical teams.”* — (WHA Resolution)
 - With specific attention to the integration of rehabilitation within trauma care set up from the planning stage.
2. *“Expand rehabilitation to all levels of health, from primary to tertiary, and to ensure the availability and affordability of quality and timely rehabilitation services.”* — (WHA Resolution)
 - This includes allocating rehabilitation professionals to health facilities providing trauma care.
3. *“Ensure appropriate and evidence-based interventions for rehabilitation along the continuum of care, including strengthening referral systems.”* — (WHA Resolution)
 - This requires identifying a care pathway, beyond the hospital discharge.
4. *“Develop strong multidisciplinary rehabilitation skills suitable to the country context, including in all relevant health workers.”* — (WHA Resolution)
 - This implies developing skills in early rehabilitation after injury, ideally from their entry education – including for all trauma care health workers.
5. *“Enhance health information systems to collect information relevant to rehabilitation, including system level rehabilitation data, and information on functioning, ensuring data disaggregation by sex, age, disability and any other context relevant factor.”* — (WHA Resolution)
 - Recognising that culturally adapted and self-reported measures of functioning are of utmost importance.
6. *“Promote high-quality rehabilitation research, including health policy and systems research.”* — (WHA Resolution)
 - Covering also rehabilitation research in emergencies, with focus on services provided and outcomes in functioning.

To know more about our research project and remain updated on its result, please visit <https://www.elrha.org/project/determinants-of-functional-outcomes-after-trauma-in-humanitarian-settings/>