

PHYSICAL AND FUNCTIONAL REHABILITATION AFTER INJURY DURING EMERGENCIES

Findings and recommendations from an operational research project

Rehabilitation from the onset

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

Background – beyond saving lives 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 the deterioration of pre-existing health conditions, but also due to newly acquired impairments such as injury. Trauma care in humanitarian settings usually **focuses more on saving lives and limbs**, however, and less on ensuring

that patients can resume their daily life after injury and participate in society. Rehabilitation, therefore, is often an after-thought in emergencies, resulting in increased numbers of people with functional difficulties and who may face additional challenges accessing essential services. There is a **lack of data** on functioning and rehabilitation care received after injury (including physical and functional rehabilitation) **in emergencies**.

Contextualised 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 patients still needed human and/or material assistance (such as assistive products) to perform daily activities, reported some pain, and had not yet returned to their pre-injury occupation.
- **Patterns of recovery are diverse:**
Patients with visceral injury and/or soft tissue injury, those with upper-limb and trunk injury, and children (6-17yrs) tended to regain their independence more quickly. Patients independent of 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 48hrs of hospital admission) and active physical and functional rehabilitation care 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.



© HI/Jaweed Tanveer, Afghanistan, Physical Rehabilitation Centre in Kandahar

Research methods

A research project was conducted in partnership with Handicap International, Médecins Sans Frontières and the Karolinska Institutet, funded by Elrha's Research for Health in Humanitarian Crises programme, with two main objectives:

- **To describe the functioning** of patients, up to six months after their injury;
- **To identify factors associated** with their independence in daily activities, including physical and functional rehabilitation.

The research was a longitudinal observational study:

- **Study participants:** 554 patients with acute injury
- **Sites:** 4 trauma projects run or supported by Médecins Sans

Frontières in the 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 functional rehabilitation (timeliness, intensity, type)

The scientific manuscript is currently in preparation.

(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, whilst addressing the functioning difficulties identified after discharge from hospital.
- Ensure that timely and active rehabilitation interventions are provided, within 48 hours of an injury.
- Provide person-centred trauma care according to the individual's needs, preferences and priorities (e.g. fulfilling domestic or professional roles).



© MSF/Pierre Fromentin, Haiti, Earthquake response Les Cayes

Broader picture

In accordance with the *“Strengthening rehabilitation in health systems”* resolution 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 paid to the integration of rehabilitation within trauma care 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 that provide trauma care.
- 3. “Ensure appropriate and evidence-based interventions for rehabilitation along the continuum of care, including strengthening referral systems.” (WHA Resolution)**
 - This requires a care pathway to be identified after discharge from hospital.
- 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 the utmost importance.
- 6. “Promote high-quality rehabilitation research, including health policy and systems research.” (WHA Resolution)**
 - This also covers rehabilitation research in emergencies, focusing on the services provided and functional outcomes.

To learn more about our research project and stay up-to-date with its outcomes, please visit <https://www.elrha.org/project/determinants-of-functional-outcomes-after-trauma-in-humanitarian-settings/>