



# Development of case studies to illustrate the standardized data collection and reporting of functioning in persons with hand conditions

16-21 October 2017  
Mexico City, Mexico

Poster Number  
C511

M É X I C O

Sandra Kus<sup>1,2</sup>, Caroline Dereskewitz<sup>3</sup>, Klaus-Dieter Rudolf<sup>3</sup>, Hubert Erhard<sup>3</sup>,  
Michaela Coenen<sup>1,2</sup> on behalf of the Lighthouse Project Hand Consortium

<sup>1</sup> ICF Research Branch, a cooperation partner within the WHO Collaborating Centre for the Family of International Classifications in Germany (at DIMDI); <sup>2</sup> Institute for Medical Information Processing, Biometry and Epidemiology (IBE), Chair for Public Health and Health Services Research, Ludwig-Maximilians-Universität München; <sup>3</sup> Department of Hand Surgery, Plastic- and Microsurgery, BG Klinikum Hamburg gGmbH, Hamburg, Germany

**Abstract** This poster presents the conceptualization and content of five case studies developed within the Lighthouse Project Hand. The aim of the Lighthouse Project Hand was to implement the Brief ICF Core Set for Hand Conditions in the treatment and rehabilitation of persons with hand injuries and diseases in Germany. Within the project we developed data collection, scoring and reporting tools to assess and report on functioning information in a standardized way. The ICF Hand<sub>A</sub> contains a series of outcome measures and clinical tests to be used to systematically assess the categories of the Brief ICF Core Set for Hand Conditions. In addition, ICF-based treatment guidelines and an ICF-based scoring and reporting tool were developed. The application and use of the ICF Hand<sub>A</sub>, the treatment guidelines and the scoring and reporting tool are illustrated in five case studies aiming to support the standardized data collection and reporting on functioning in patients with hand injuries and diseases.

## Introduction

Within the Lighthouse Project Hand we developed the ICF Hand<sub>A</sub> [1] based on a multi-step and evidence-based procedure [2]. The ICF Hand<sub>A</sub> is an assessment set covering the aspects of functioning included in the Brief ICF Core Set for Hand Conditions [3]. ICF-based treatment guidelines for selected injuries and diseases of the hand were developed. In these treatment guidelines, the time points for the assessment of the ICF Hand<sub>A</sub> were defined for each of the injuries and diseases. In addition, an ICF-based scoring and reporting tool has been established outlining the status of functioning assessed with the ICF Hand<sub>A</sub> along the continuum of care. Case studies were developed to illustrate the use of the Hand<sub>A</sub>, the treatment guidelines and the scoring and reporting tool.

This poster reports on the conceptualization and content of the case studies developed within the Lighthouse Project Hand.

## Methods & Materials

We set up case studies to highlight and explain the application of the Hand<sub>A</sub>, the ICF-based treatment guidelines and the scoring and reporting tool using real-life stories and the software Articulate Storyline®. Patients with the following hand injuries and disorders were selected:

- Traumatic amputation of finger(s)
- Fracture of finger(s)
- Arthrosis of the carpometacarpal joint (rhizarthrosis)
- Dupuytren's contracture
- Complex regional pain syndrome (CRPS)

Data were collected using the ICF Hand<sub>A</sub> according to the time points defined in the treatment guidelines. In addition, semi-structured face-to-face and telephone interviews were performed.

## Results

We set up five case studies using real-life stories of persons with the selected hand injuries and disorders. Information retrieved from the semi-structured interviews were used to create the case stories and to illustrate the individual case histories.

Case study 1 – Mr. Schulze, 57 years  
 Traumatic amputation of finger(s)

Case study 2 – Mr. Fritsche, 48 years  
 Dupuytren's contracture

Case study 3 – Mrs. Tausch, 68 years  
 Rhizarthrosis

Case study 4 – Mr. Stoeckel, 35 years  
 Fracture of finger(s)

Case study 5 – Mr. Loeffler, 45 years  
 Complex regional pain syndrome

Fig. 1: Case studies: Five real-life stories

Case studies are presented as an electronic resource on the homepage of the Lighthouse Project Hand.



Only in German language available

## Results continued

Data on functioning assessed with the ICF Hand<sub>A</sub> according to the treatment guidelines were presented using interactive features of Articulate Storyline®.

Changes in functioning along the continuum of care are displayed and shown using the standardized scoring tool.



Fig. 2: Case study 1: Mr. Schulze - traumatic amputation of the finger; screenshots displaying the assessment and scoring of pain according to the ICF Hand<sub>A</sub>.

## Conclusions

With the five case studies we provide real-life stories of persons with hand injuries and disorders to illustrate the use and reporting of the ICF Hand<sub>A</sub>.

## Acknowledgements

The Lighthouse Project Hand was a cooperation project of the Department of Hand Surgery, Plastic and Microsurgery, BG Trauma Hospital Hamburg (Germany), the Ludwig-Maximilians-Universität (LMU) Munich (Germany) and departments of hand surgery of nine trauma hospitals in Germany. The project was funded by the German Social Accident Insurance (DGUV). The responsibility for the content of the poster lies with the authors.

## References:

- 1 Lighthouse Project Hand: Implementation of the ICF Core Sets for Hand Conditions in clinical practice; [www.leuchtturmprojekt-hand.de/functioning/](http://www.leuchtturmprojekt-hand.de/functioning/) [accessed: September 07, 2017].
- 2 Kus S, Dereskewitz C, Coenen M, Rauch A, Rudolf KD, Consortium Lighthouse Project Hand. International Classification of Functioning, Disability and Health: development of an assessment set to evaluate functioning based on the Brief ICF Core Set for Hand Conditions - ICF Hand<sub>A</sub>. J Hand Surg Eur 2017;42(7):731-741. doi: 10.1177/1753193417706248.
- 3 Rudolf KD, Kus S, Chung KC, Johnston M, LeBlanc M, Cieza A. Development of the International Classification of Functioning, Disability and Health core sets for hand conditions - results of the World Health Organization International Consensus process. Disabil Rehabil 2012;34(8):681-693. doi: 10.3109/09638288.2011.613514.