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Predicting the rehabilitation outcome after trauma based on the ICF: conceptualization of the project icfPROreha

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Abstract In April 2017 a joint effort of ten German rehabilitation clinics and departments started with the aim of establishing an ICF-based outcome prognosis tool to predict return to work of patients with severe musculoskeletal injuries in orthopaedic and trauma surgical rehabilitation. Aim of this poster is to present the conceptualization and methods used in this effort. In a first step, aspects of functioning and contextual factors to be considered when assessing inpatient rehabilitation outcome of these patients will be determined. Based on this, measures that should be used to assess these functioning aspects and contextual factors will be specified. Data of 1,200 patients will then be collected in the ten collaborating inpatient rehabilitation clinics and departments using the measures specified. Based on these data multivariate analyses will be applied to predict time off work and return to work. These analyses are expected to enable an outcome prognosis at admission to inpatient rehabilitation that is based on functioning information and contextual factors.

Introduction

Patients with severe musculoskeletal injuries experience a wide range of impairments, limitations and restrictions, as well as reduced quality of life. It is known that a considerable number of patients have difficulties to return to work or have a prolonged time off from work even after rehabilitation. Thus, the prediction of return to work (RTW) of patients with severe musculoskeletal injuries is of utmost importance in order 1) to identify patients with a potential problematic outcome (e.g., prolonged time off work or no RTW) and 2) to intensify or adapt patients' rehabilitation at an early stage. There is evidence that a wide range of determinants are relevant to predicting RTW in these patients. Most studies focus on a limited number of predictors (diagnoses, work-related aspects). Studies examining potential predictors covering the entire bio-psycho-social framework of the International Classification of Functioning, Disability and Health (ICF) are missing. In April 2017, *icfPROreha* – a joint effort of ten German rehabilitation clinics and departments started with the aim of establishing an ICF-based outcome prognosis tool to predict RTW in patients with severe musculoskeletal injuries who are admitted to orthopaedic and trauma surgical inpatient rehabilitation.

Aims of *icfPROreha*

1 To identify determinants that have an impact on successful outcome (sustainable RTW) of patients with severe musculoskeletal injuries when admitted to inpatient rehabilitation. The bio-psycho-social framework of the ICF is taken into account to gain a broad understanding of the impact of functioning and contextual factors on the outcome of rehabilitation and more specifically RTW and quality of life.

Aims of *icfPROreha* continued

2 To establish an algorithm to predict RTW and prolonged time off work based on the identified determinants;

3 To make recommendations on how to employ the identified determinants to considerably shorten time off work and to facilitate sustainable RTW.

Conceptualization and Methods

icfPROreha is a 44-month project that is being carried out using a wide range of methods.

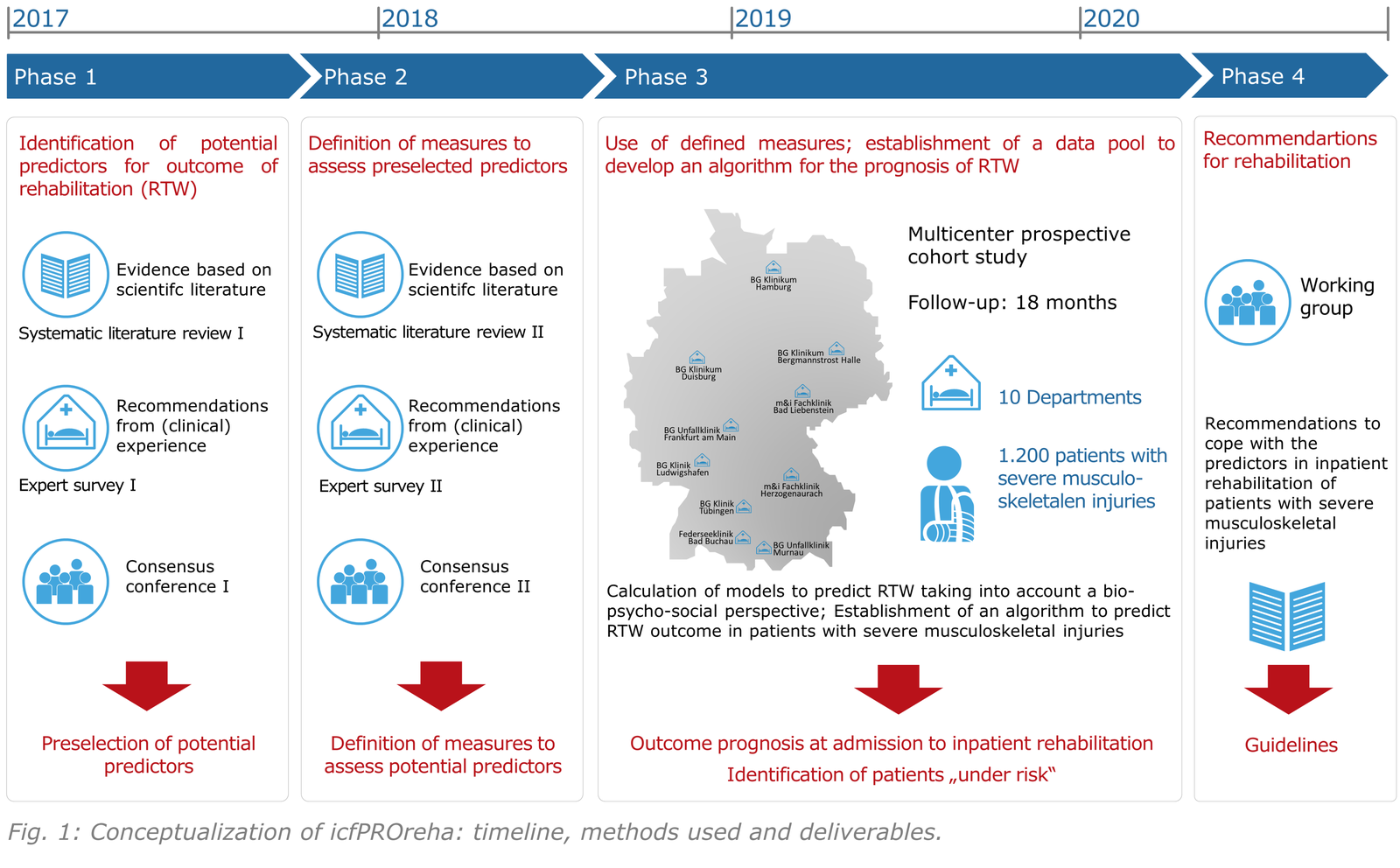

Fig. 1: Conceptualization of icfPROreha: timeline, methods used and deliverables.

Status of the Project

Phase I of the project is going to be finalized in October 2017. So far, the results of the systematic literature review and the expert survey were presented at the consensus conference which took place from 28-29 September 2017. In total, 20 participants pre-selected potential predictors of outcome in inpatient rehabilitation of patients with severe musculoskeletal injuries.

Acknowledgements

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