



<b>Title</b>	<b>Development of Tools to Assess the Results of Technologies Applied to the Rehabilitation Process</b>
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## Aim

1. To assess the efficacy and efficiency of technologies in rehabilitation of people with disabilities of a neurological origin based on the impact on functionality and quality of life.
2. To use the International Classification of Functioning, Disability, and Health (ICF), developed by the World Health Organization, to conduct prospective longitudinal studies on the effect of interventions on functional capacity and quality of life of the population, using standard tools validated for the study of individual cases, as compared against normal values.

## Conclusions and results

Aside from the work performed by the authors and experts who have participated in the different panels, we would like to emphasize that the information presented is the result of the interdisciplinary, rigorous, and systematic work carried out by occupational therapists, physical therapists, psychologists, neuropsychologists, social workers, and doctors from different specialties, whose main objective has been to promote, boost, and achieve integral rehabilitation and social reinsertion of people affected by a spinal cord injury, brain damage, or any other serious physical disability of neurological origin.

## Methods

The book has three parts. Part one describes methodological difficulties, establishes functionality, quality of life, and personal satisfaction criteria as the ultimate objectives of technologies applied to the rehabilitation process. It also discusses the possibility of using Research on Health Outcomes to study data derived from the healthcare process and to process the information it contains. Also considered were the possibilities for applying correlation studies, survival studies, and data mining in the discovery of knowledge from information derived from the healthcare process.

Part two includes several examples of methodological measures and solutions employed to measure the efficacy and efficiency of different technologies (and techniques) applied in neurorehabilitation programs. Another issue addressed includes the possibility of comparing different surgical procedures, the efficacy and efficiency of which have been studied, but which require a specific approach in the context of the spinal cord. Also overviewed are the possibilities of studying different systems applied to gait rehabilitation, assessment of technologies applied to the prevention of pressure ulcers, and data on the different levels of evidence on which neuropharmacological interventions are based.

Part three focuses on examples of applied technologies to provide objective information that facilitates more effective and efficient application of measures such as video fluoroscopy, anorectal manometry, neuroimaging techniques, neurophysiology techniques (conventional and advanced), kinematic analysis, and the study of factors that can act as sources of confusion in observed results, eg, depression or systematic pain management in neurorehabilitation.