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Integrating goal setting and outcome measures in daily practice

RIMS 2012 - Hamburg

01. June 2012

Kurt Luyckx

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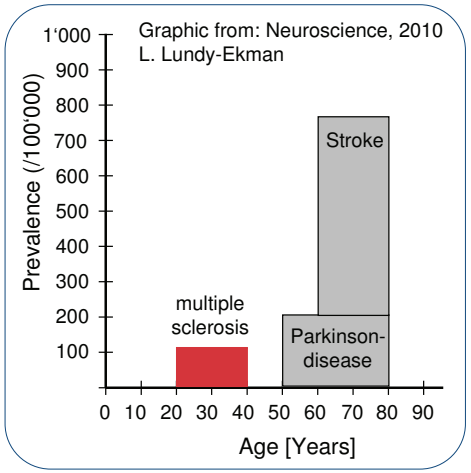
Multiple sclerosis



the most common neurological disorder and cause of disability among young adults [1]

[1] Kesselring, 2005

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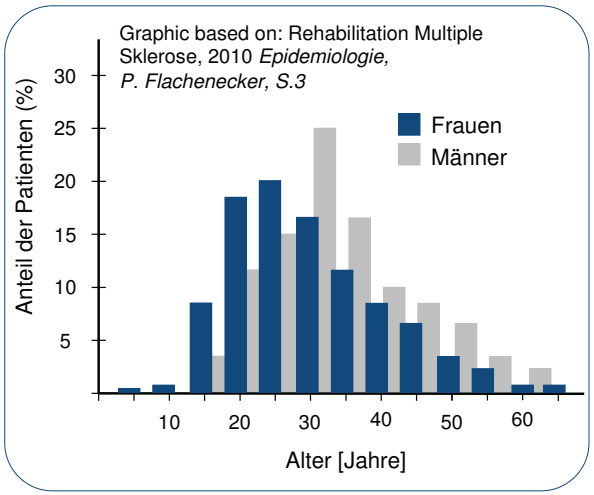
Age distribution of MS



in 70% of all PwMS the first symptoms occurs between the 2nd and 4th decade [1]

[1] Kesselring, 2005

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Epidemiology

The majority of PwMS are in the **most active period** of their life.

Accordingly MS has a great impact on **many areas of their life** (education, family, profession etc.).

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Epidemiology

- An increasing number and range of new signs and **symptoms develop over time** [1]
- **Symptoms vary** widely in a given individual and from individual to individual [1]
- Rate and pattern of the deterioration is **not predictable** [1]
- significant implications for the performance of activities of daily living, participation in social live, quality of live and costs to society [3, 4]
- MS is a highly complex, heterogeneous disease with a high prevalence of **long-term disability** [2]

[1] Freeman 2009 ; [2] Beer et al, 2012 ; [3] Coenen et al, 2006; [4] Kobolt et al, 2006

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Overview is needed

There is a **need for a continuous, comprehensive assessment** of health and multidisciplinary long-term management.

ICF could build a framework and can be **used as a clinical tool**.

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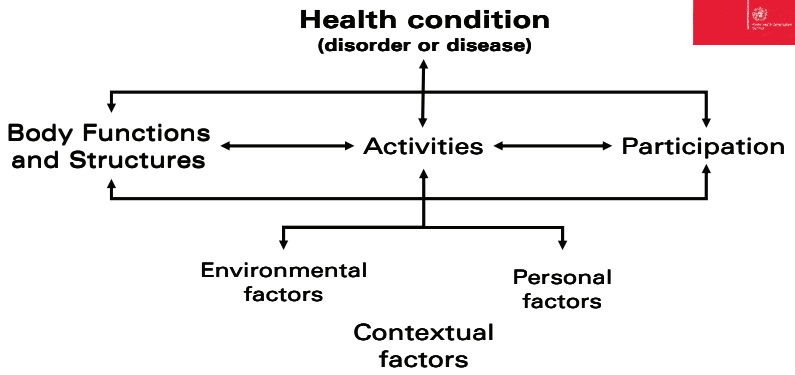
ICF-Model



[5] WHO, 2001

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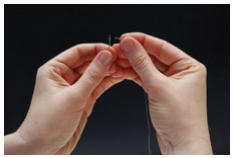
Activities and Participation

Activity is the **execution of a task** or Action by an individual.

Participation is **involvement** in a life situation.

[5] WHO, 2001



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Body Functions and Structures

Body functions are the physiological **functions of body systems** (including psychological functions).

Body structures are **anatomical parts of the body**, such as organs, limbs and their components.

[5] WHO, 2001

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Contextual Factors

Contextual Factors represent the complete background of an individual's life and living.

Environmental Factors and

Personal Factors

can have a positive (facilitators) or negative (barriers) influence.

[5] WHO, 2001

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Contextual Factors

Environmental factors make up the physical, social and attitudinal environment in wich people live and conduct their lives.

Personal Factors comprise features of the individual that are not part of a health condition or health states

Expl. age, gender, coping styles, habits, social background, education, profession, etc.

[5] WHO, 2001

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Bio-psycho-social Model

The **ICF is helpful** for communicating about the functional limitations of PwMS, rehabilitation goals, and interventions applied.

[8] Holper et al, 2010; [9] Conrad et al, 2012

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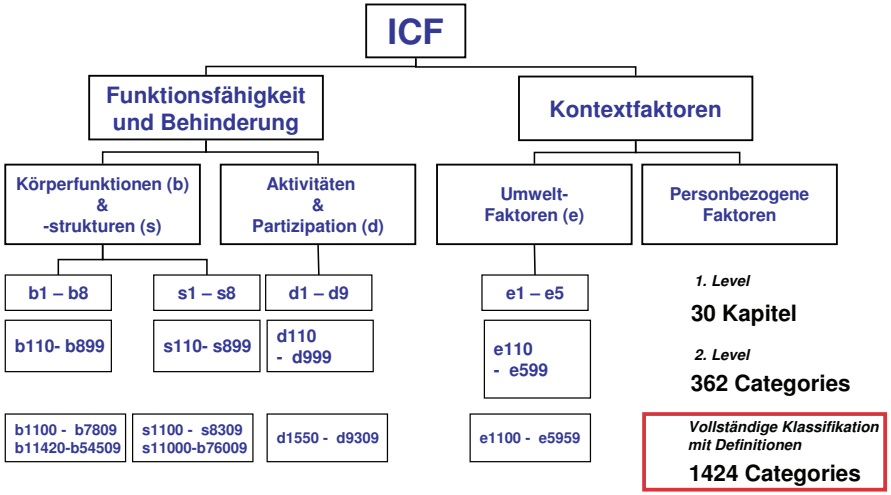
ICF-Classification



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Development ICF-Core Sets

To systematically and comprehensively describe functioning and disability in Multiple sclerosis (MS), an **ICF-Core Set has been developed**.

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Definition ICF-Core Set MS

Pool of categories relevant to PwMS

The aim is to include:

- as few categories as possible to be practical
- as many as necessary to sufficiently cover the spectrum of limitations in functioning experienced by PwMS

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Consensus conference MS

21 experts from 16 different countries and diverse health professionals - Valens Mai 2008

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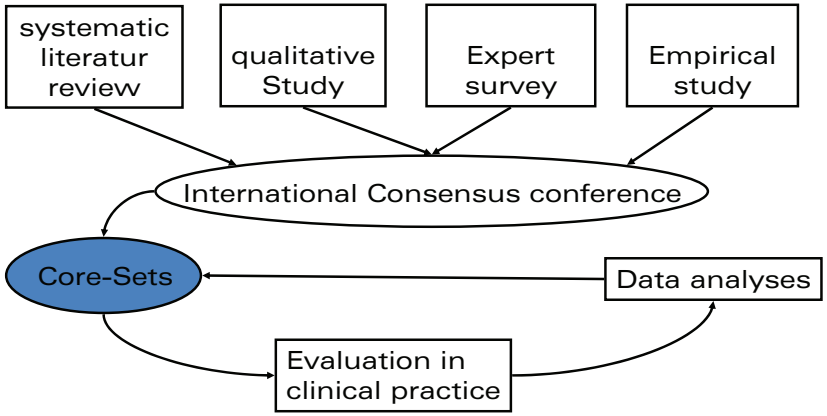
Multistage and evidence based



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Comprehensive ICF-Core Set MS

138 ICF categories

- 40 bodyfunction,
- 7 bodystructure,
- 53 activity- and participation categories
- 38 environmetal faktors

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Brief ICF Core Set MS

Brief ICF Core Set for Multiple Sclerosis

Body Functions	
b130	Energy and drive functions
b152	Emotional functions
b164	Higher-level cognitive functions
b210	Seeing functions
b280	Sensation of pain
b620	Urination functions
b730	Muscle power functions
b770	Gait pattern functions
Body Structures	
s110	Structure of brain
s120	Spinal cord and related structures
Activities & Participation	
d175	Solving problems
d230	Carrying out daily routine
d450	Walking
d760	Family relationships
d850	Remunerative employment
Environmental Factors	
e310	Immediate family
e355	Health professionals
e410	Individual attitudes of immediate family members
e580	Health services, systems and policies

19 ICF Kategorien

- 8 Körperfunktions-,
- 2 Körperstruktur-,
- 5 Aktivitäts- und Partizipationskategorien
- 4 Umweltfaktoren

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Rehabilitation process

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Requirements Patients and other interested parties

Admission

Rehab-Process

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Requirements Patients and other interested parties

Admission

Patient-centred

PATIENT

Rehab-Process

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Requirements Patients and other interested parties

Admission

Patient-centred

PATIENT

Expectations of the patient

Rehab-Process

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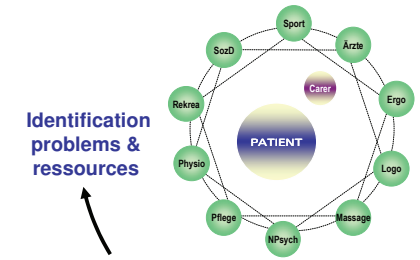
Requirements Patients and other interested parties

Admission

Rehabilitation



Identification problems & ressources

Expectations of the patient

Rehab-Process

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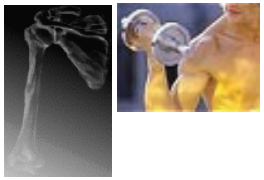
Identification of

Functioning

Bodystructure and Bodyfunction



Disability

Impairments

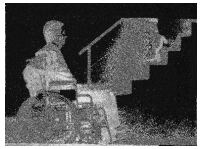
Limitations of Activity and Participation

PATIENT

Contextual Factors

Facilitators

Barriers



Activities and Participation

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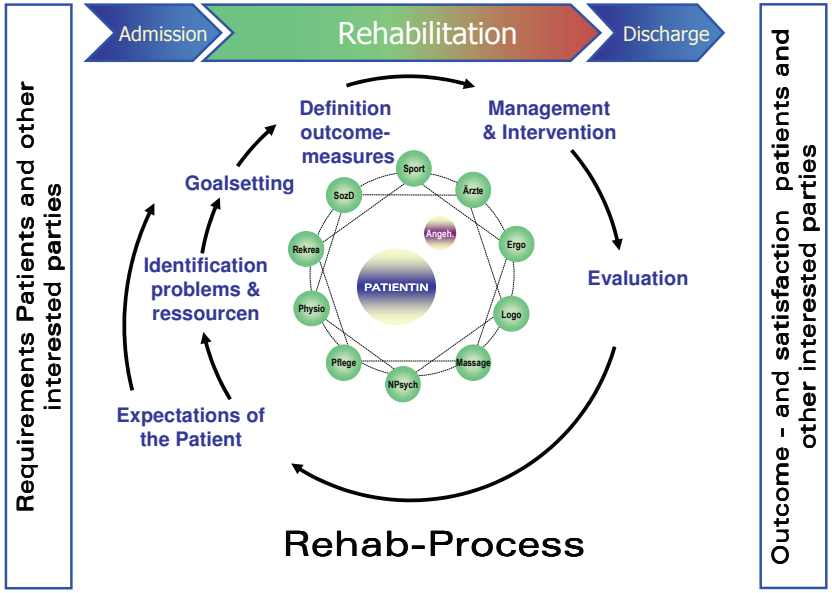

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Clinical case

Documentation in a Clinical Information System

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J.B., 1978

Multiple Sclerosis (relapsing remitting)

- First symptoms: Paresthesia 2010
- EDSS 5 after relaps in April 2012
- Clinical: right Hemiparese and reduced sensibility

Ms. B is **married**, lives with her husband in a 3-room **apartment on the 5th floor** with an elevator. The **last floor** is reached by a **stair with handrail**.

Ms B. has a **son of 11 months** and has she has done her **household** independently until April 2012.
She didn't need any assistance or device.
She worked **50% as a secretary** in a law firm.

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Expectations of the patient

- Return back home as soon as possible to take care of her 11-month old son!
- Doing household
- Walking safely on the road
- Reduced tiredness (heat-sensitive)
- Better using her right hand
- More strength in her right leg

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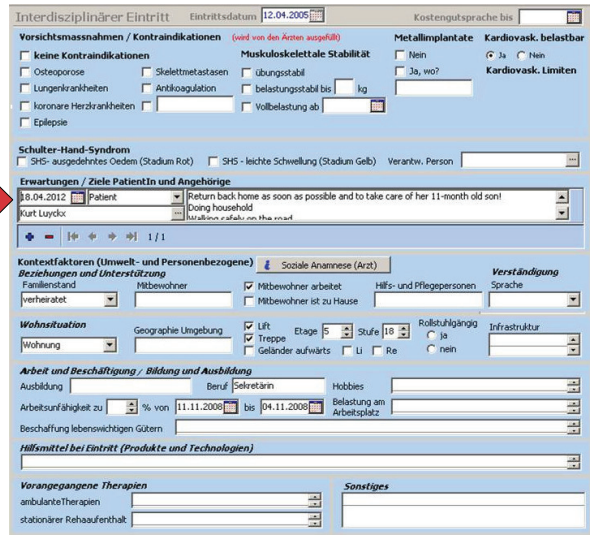
Documentation in CIS

Expectations

Environmental and personal factors



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Problem-identification

Lifting and carrying objects (d430)

Fine hand use (d440)

Maintaining a body position (d415)

Moving around in different locations (incl. Stairs) (d460)

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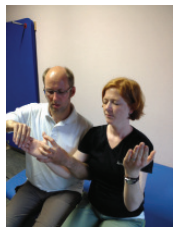
Problem-identification

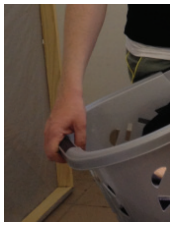
Involuntary movement reaction function (b755)

Proprioceptive function (b260)



Muscle power functions (b730)

Muscle tone functions (b735)



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Rehab-Goalsetting

living independently with additional tasks

- She can move around in different locations (climbing a stair with 18 Steps) in 3 weeks (normal velocity)
- Cardio respiratory endurance is 20% increased until discharge
- She can hold a laundry basket in 3 weeks
- She can carry her 11-month old son (10 kg) until discharge.
- She has received information on fatigue management and translate this knowledge in daily routine

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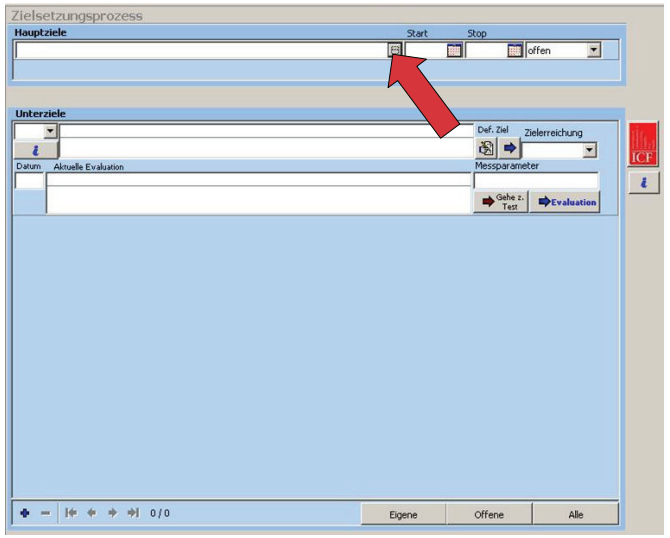
Documentation in CIS

Main-Rehab goal

short-term goals



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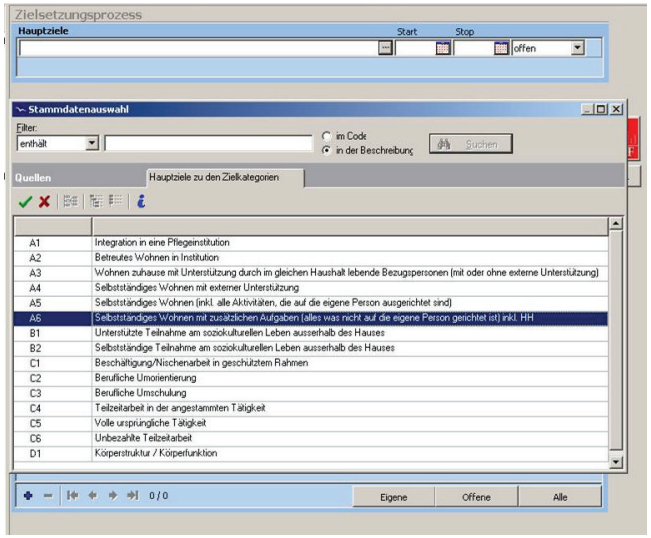
Documentation Rehab-Goal

Rehab-goal

4 goal-categories

- living
- working
- sociocultural life
- Body function & body structure



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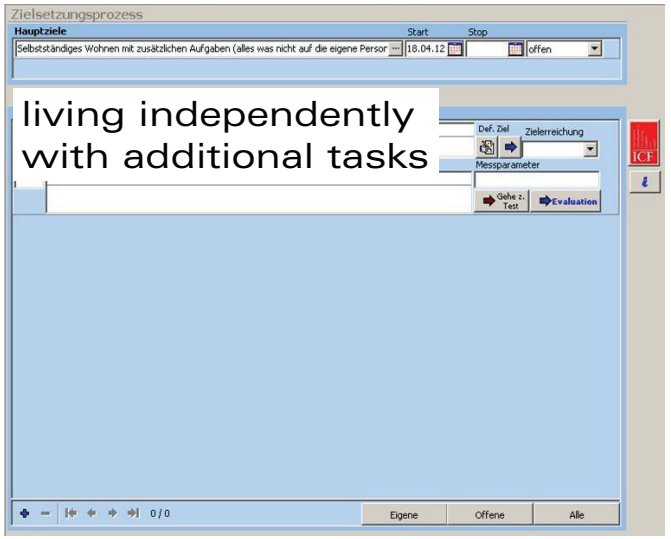
Documentation of Rehab-Goal

Rehab-goal



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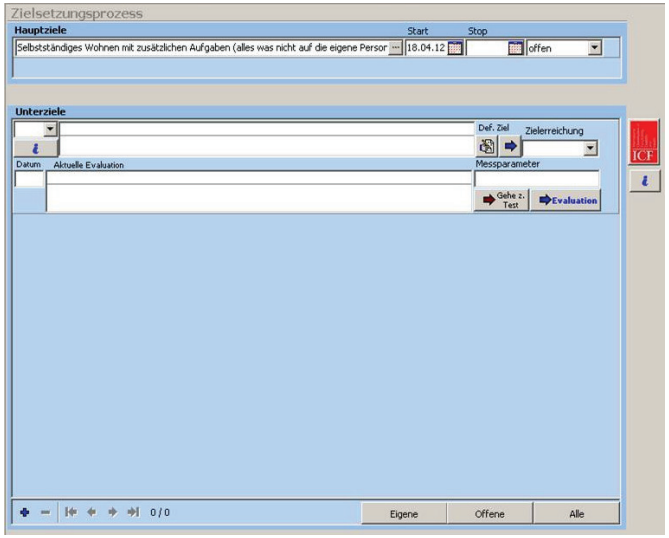
Documentation short-term Goals

REHAB-goal

short-term goals



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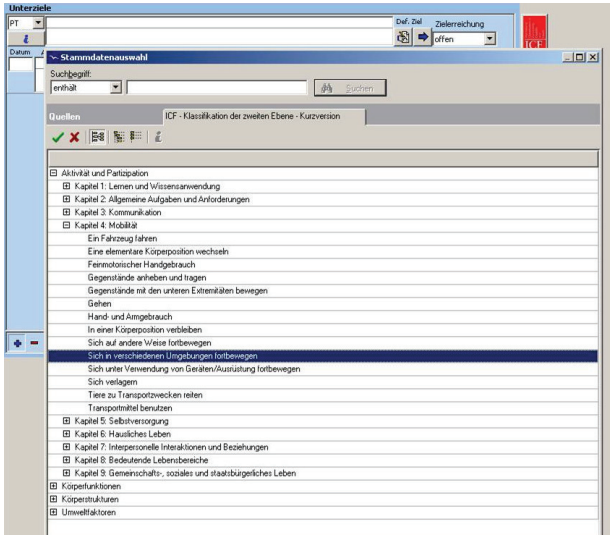
Documentation short-term Goals

REHAB-goal

short-term goals

Second level of ICF-classification



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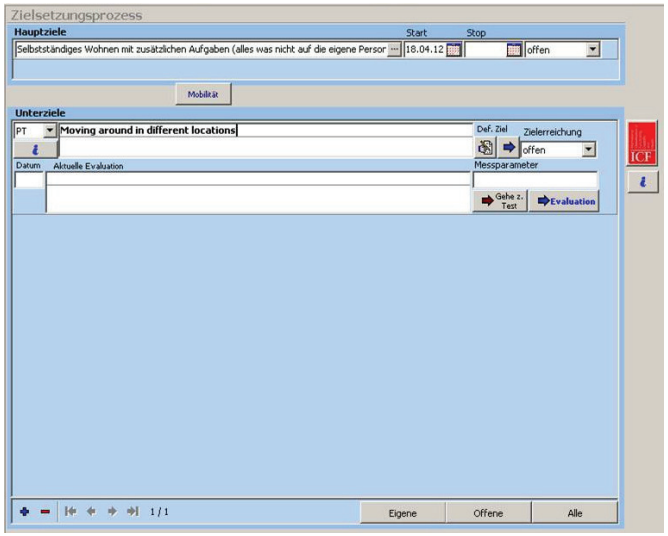
Documentation short-term Goals

REHAB-goal

short-term goals

Second level of ICF-classification



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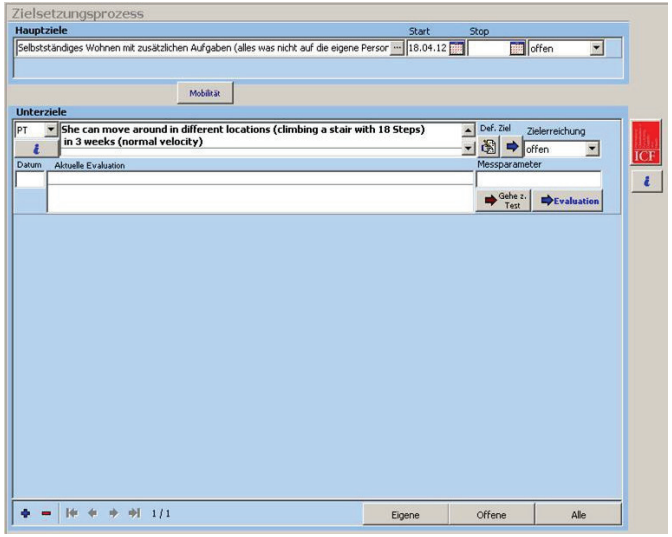
Documentation short-term Goals

REHAB-goal

short-term goals

S pecific
M easurable
A chievable
R ealistic
T ime framed



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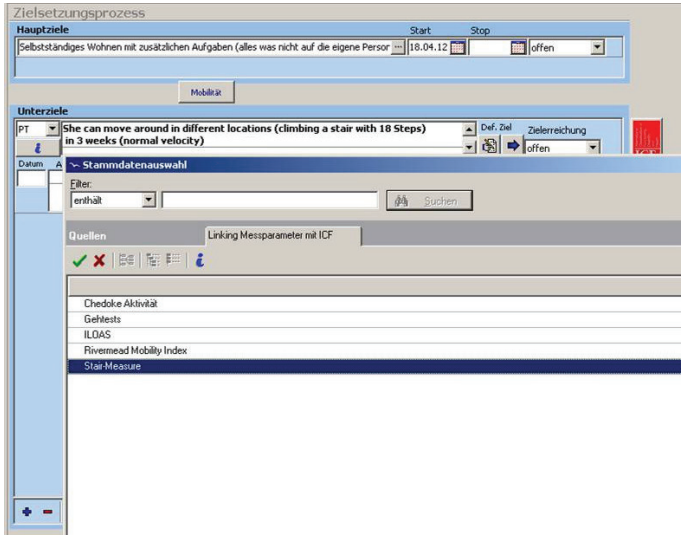
Choosing a measurement

REHAB-goal

short-term goals



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Linking ICF Categories and Measures

"Assessments in Rehabilitation"

St. Schädler et al, 2012

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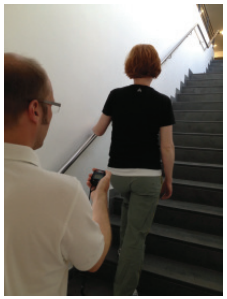
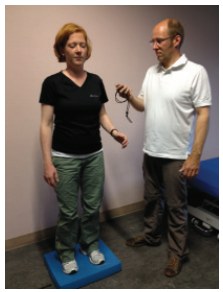
Outcome measures



Stair measure
Stair climbing

6 MWT (incl. Borgscale)
Endurance and walking ability



Sensory Organistion Test
Balance

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Outcome measures

JAMAR
Manual force (Flexion)

Purdue Pegboard
Coordination, Fine hand use

Dynamometry
Strength Shoulder-, Elbowflexors and Kneeextensors

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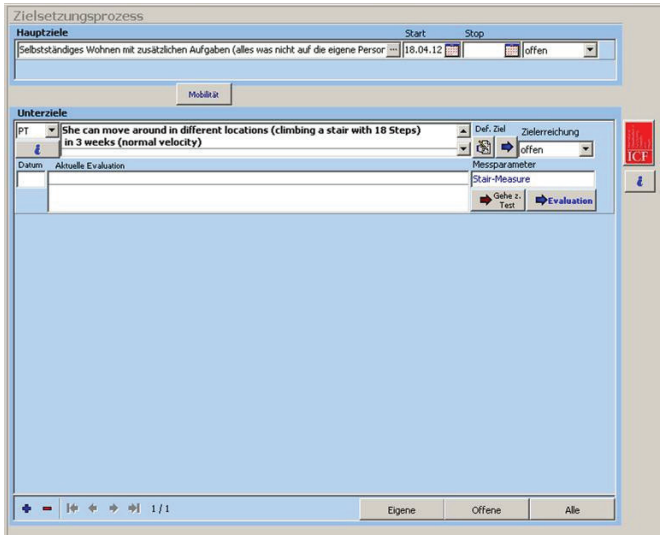
Documentation outcome measure

REHAB-goal

short-term goals

and

Outcome-measure



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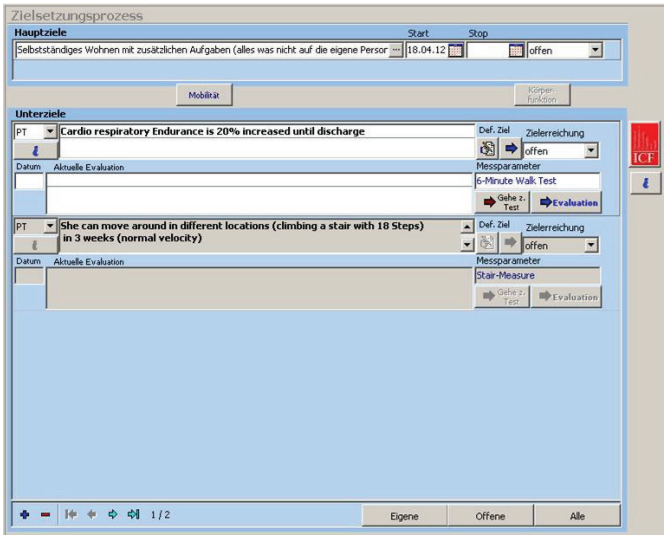
Documentation outcome measure

REHAB-goal

short-term goals

and

Outcome-measure



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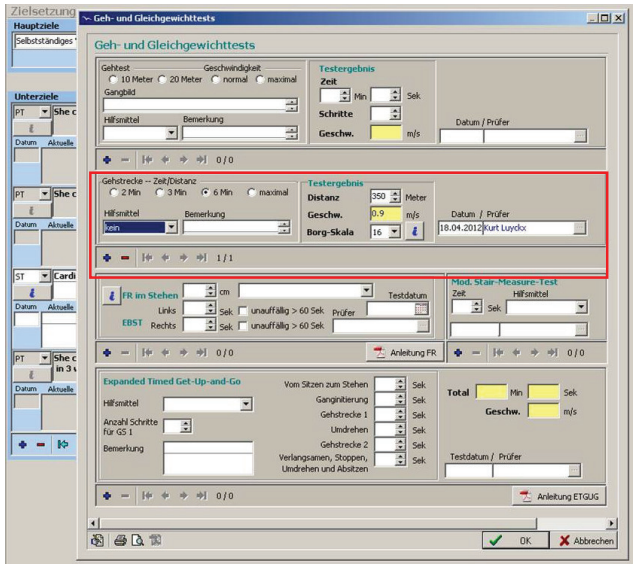
Documentation outcome measure

REHAB-goal

short-term goals

and

Outcome-measure



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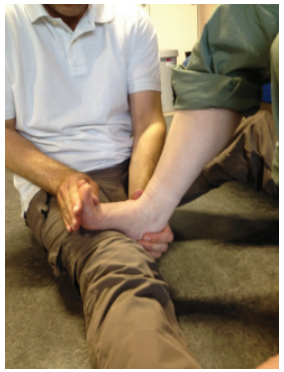
Interventions on Body functions and –structure level

ROM und Sensibility

Mobility foot



Sensory stimulation

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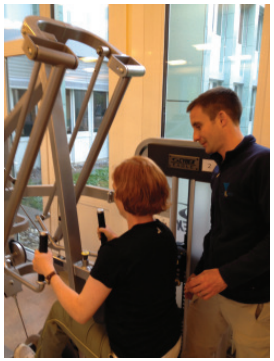
Interventions on Body functions and –structure level

Strength training

Strength hand

Upper extremity

Shoulder stability



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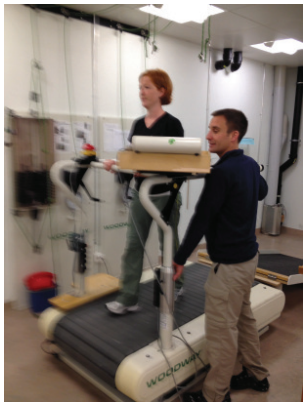
Interventions on Body functions and –structure level

Endurance training

Ergometer bicycle

Treadmill training



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Interventions on Body functions and –structure level

Coordination- and balance training

coordination / Proprioception

Proprioception

Balance- and protective reactions

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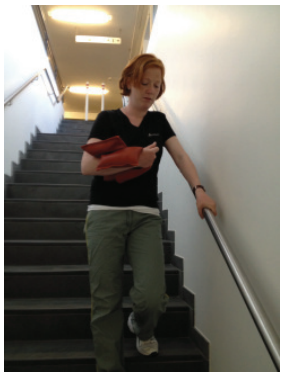
Interventions on activity level

Task specific Training

Managing obstacles

Simulation „Son-carrying“



Simulation HH-Activities

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Intervention on Participation

Information und Patient-Education

Copingstrategies
„Fatigue-Management“

Devices in household

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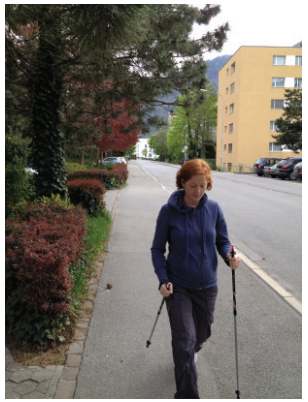
Intervention on participation level

Information und Patient-Education (Home Excercise Programm)

“staying active”



relaxation

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Intervention on contextual Faktors

Orthosis and external device management

Centriorthosis

Cooling vest

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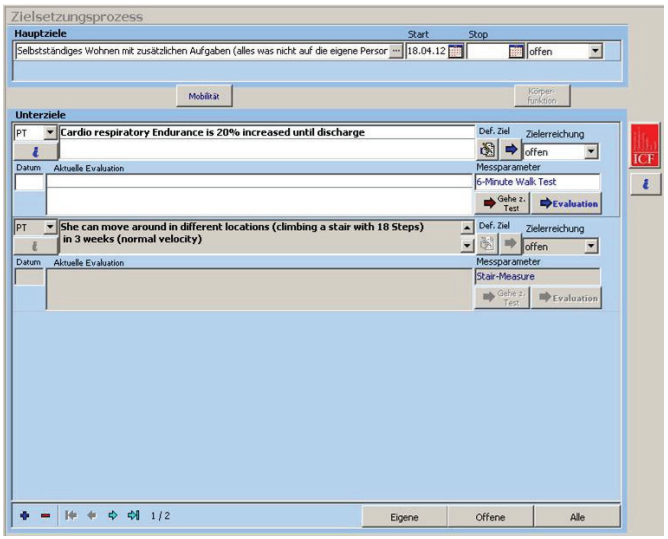
Documentation of progress



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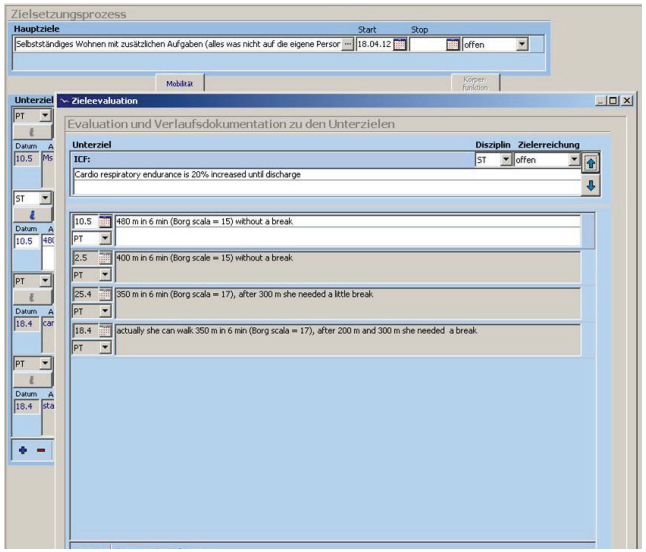
Documentation of progress

REHAB-goal

Progress of short-term goals



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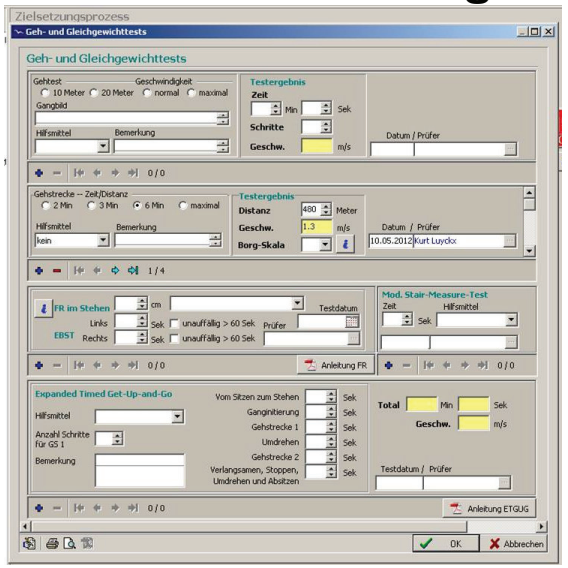
Outcome measure at discharge

Outcome-measure



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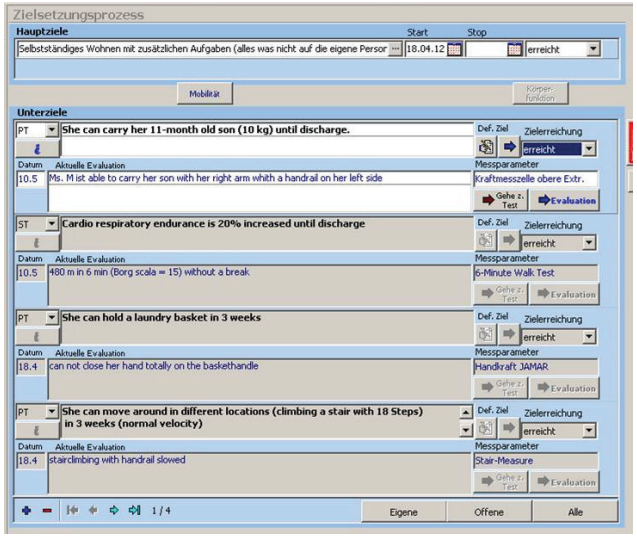
Documentation at discharge

REHAB-goal

short-term goals



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Outcome and satisfaction

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Thank you for your attention

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