

# Rolle der Pflege in der Rehabilitation

## Nursing – a core element of rehabilitation

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# Disclaimer

- **No conflict of interest** with regard to the topic of this lecture
- However, as president elect of **Rehabilitation International**, I am advocating for the implementation of the UN-Convention of Persons with Disabilities (*UN-CRPD*) and the implementation of Rehabilitation (*e.g. according to the WHA resolution on rehabilitation*)
- **Senior consultant** of Hannover Rehabilitation services consultant services

Bitte entschuldigen Sie, dass die meisten Dias in englischer Sprache abgefasst sind

# Preface

- “Can you imagine **performing an acute rehabilitation program without nurses**? Can you imagine **running a post-acute rehabilitation centre without any nurses**?  
No!
- Activation and empowerment are core elements of rehabilitation care, **can you imagine not involving nursing in these care concepts**? No!
- Can you imagine to be successful in **performing rehabilitation programs without specific nurses trained in rehabilitation** and not to have them in your rehabilitation team? No!”

Gutenbrunner C, Stievano A, Nugraha B, Stewart D, Catton H: Nursing - a core element of rehabilitation. *Int Nurs Rev* 2021; *Int Nurs Rev* 2021, 69: 13-19

# Overview

- Understanding rehabilitation
- Aspects of “traditional” nursing and rehabilitation nursing
- Team-work in rehabilitation: challenges and relevance
- Aspects of training
- Outlook

# Understanding rehabilitation

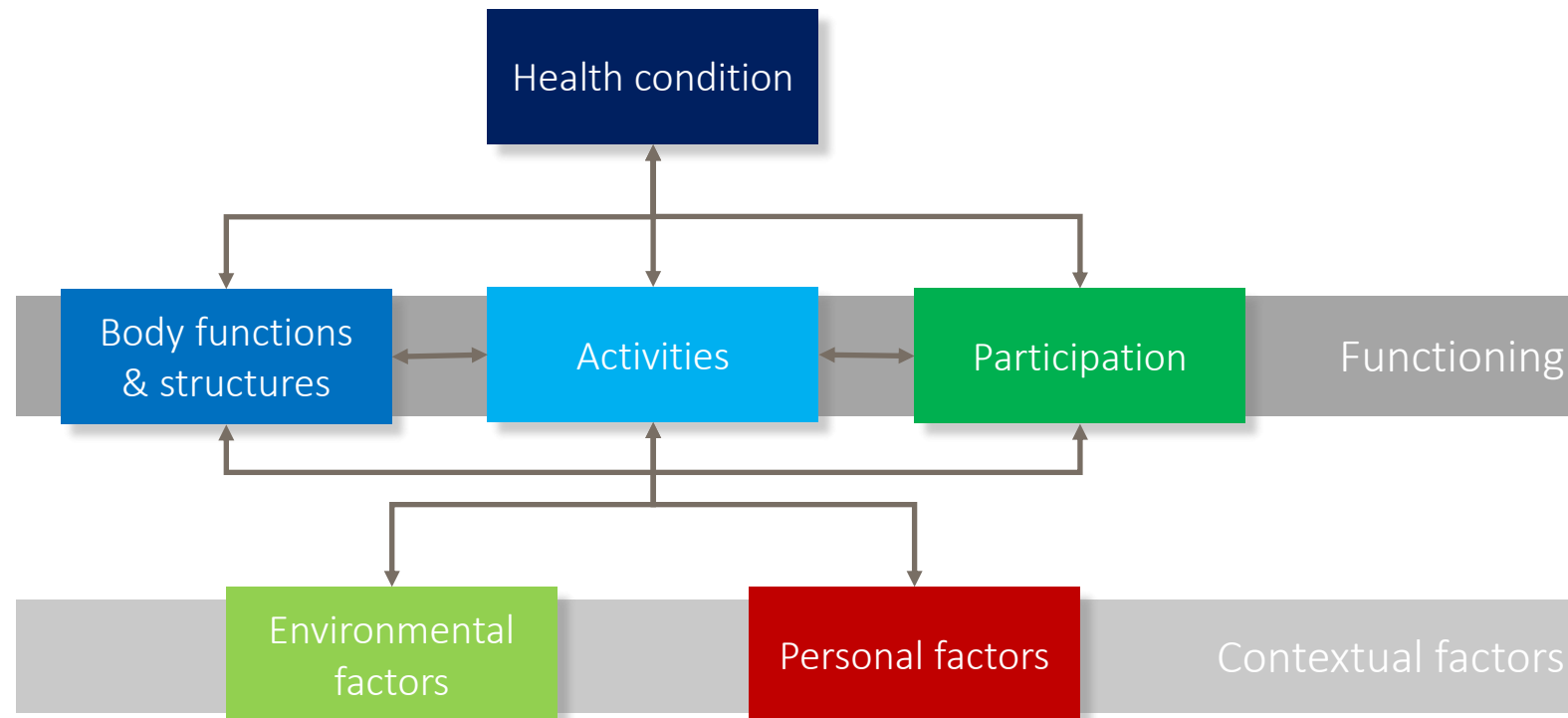
# Rehabilitation definitions

- “Rehabilitation is **the health strategy** which (...) applies and integrates biomedical and engineering approaches to optimize a person’s capacity (...), approaches which provide a facilitating environment (...) with the goal to enable people with health conditions experiencing or likely to experience disability **to achieve and maintain optimal functioning in interaction with the environment**” (Meyer T, Gutenbrunner C, Bickenbach J, Cieza A, Melvin J, Stucki G: *Towards a conceptual description of rehabilitation as health strategy. J Rehabil Med* 2011; 43: 765-769)
- The World Report on Disability defines rehabilitation as “**a set of measures** that assist individuals who experience, or are likely to experience, disability **to achieve and maintain optimal functioning in interaction with their environments**” (World Health Organization & World Bank: *World Report on Disability. WHO, Geneva 2011*)

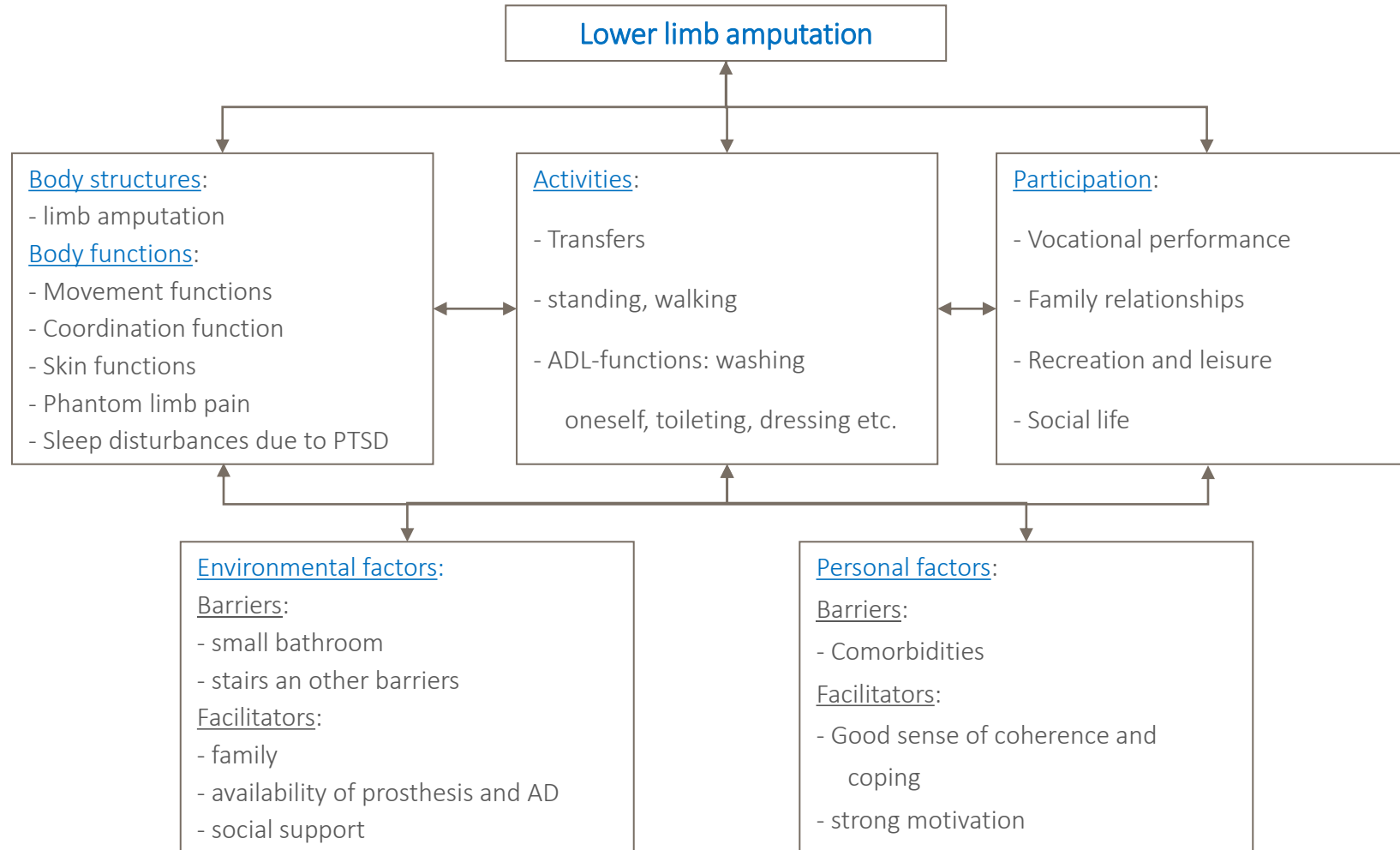
It is both, a health strategy and a set of interventions

# The comprehensive model of functioning

(World Health Organization: International Classification of Functioning, Disability and Health; ICF, Geneva 2001)



# Patient case: disability (*limitations of functioning*) in ICF-model





# Rehabilitation goals (*examples*)

- Body functions:
  - good respiration and cardiovascular functions
  - good skin functions, absence of pressure sores
  - joint mobility, muscle force
  - mood, energy and drive
- Activities & participation:
  - self care
  - mobility
  - work and employment
  - and others

# WHA Resolution Strengthening Rehabilitation in Health Systems

- “URGES Member States:

- (OP1.3) to **expand rehabilitation to all levels of health, from primary to tertiary** (...);

- (OP1.4) to ensure the integrated and coordinated provision of high-quality, affordable, accessible, gender sensitive, appropriate and evidence-based interventions for rehabilitation **along the continuum of care**, (...)

- (OP1.5) to develop **strong multidisciplinary rehabilitation skills** (...) including in **all relevant health workers**; (...) including the integration of rehabilitation in early training of health professionals, (...)

# Aspects of “traditional” nursing and rehabilitation nursing

## The role of nursing in rehabilitation

As described above, the traditional model of nursing consisted of supporting patients with basic needs but in the last 40 years different models of taking care of more complex needs of people emerged and also different functions of nursing (prevention, education, rehabilitation, etc.). The different models have been developed to better meet the essence of nursing holistic care, especially person-centredness care models (McCance et al., 2011) or integrated care systems (Duncan, 2019) or synergistic models (Hardin and Kaplow 2017) are now part of the knowledge embedded in nursing science. For various reasons, sometimes patients are passive care recipients of the nursing interventions, and therefore, they do not full take advantage in terms of self-care awareness, education and independent living. Modern concepts of nursing significantly changed these old constructs and favoured the support of patients to perform self-care independently and actively. Thus, the patient is actively involved, and the intervention is not only focused on delivering care but tends to educate and train the patients on how to accomplish it. Of course, both concepts are necessary and overlap. However, it must be stressed that the approach of activating nursing care represents the core principle of rehabilitation (McPherson 2006).

One concept for rehabilitation of patients with neurological conditions stresses that rehabilitation care must be done 24 h per day and underlines that this has to be accomplished in collaboration between health professionals, the person requiring care and their family (Aries 2014).

Gutenbrunner C, Stievano A, Nugraha B, Stewart D, Catton H: Nursing - a core element of rehabilitation. Int Nurs Rev 2021; doi.org/10.1111/inr.12661

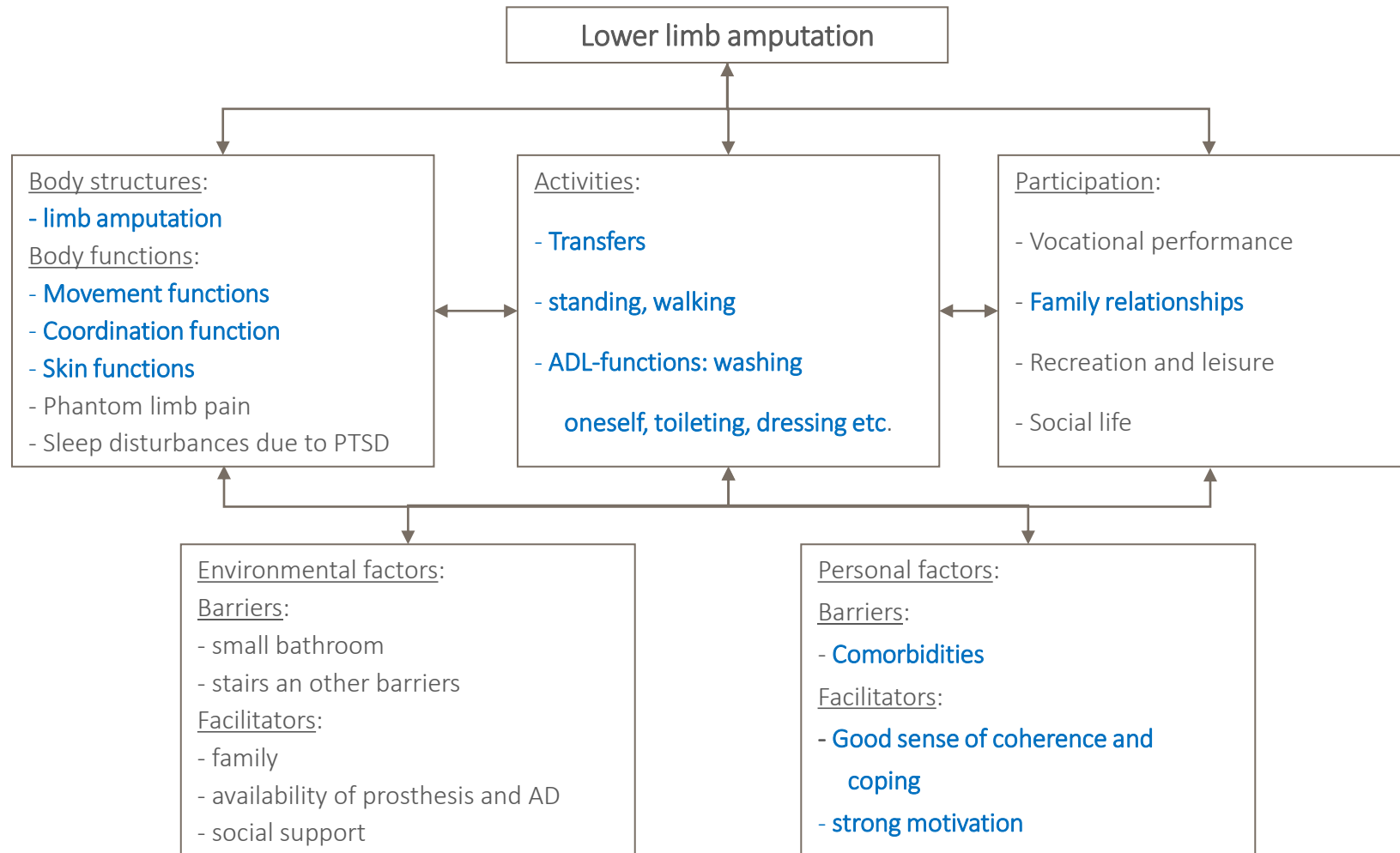
# Nursing in rehabilitation (*basics*)

- **Definition**: “The diagnosis and treatment of human responses of individuals and groups to actual and potential health problems related to impairments in function and lifestyle.” (*Association of Rehabilitation Nurses (ARN) 2014*)
- **Goals (key words)**: potential, learning, ability, quality of life, family centered care, wellness, cultural-competent care, and community integration“ (*Spasser and Weismantel, 2006*)
- **Role in acute care**: nurse-led interventions (*e.g. assist patients in utilizing supportive technology*), promotion of health and successful living (*e.g. fostering self-management*), leadership (*e.g. disseminating rehabilitation nursing knowledge*), and interprofessional care (*e.g. implementing interprofessional and holistic care plan*) (*Havrilla 2017*)

# Nursing in rehabilitation (*examples*)

- Acute rehabilitation:
  - support basic body functions such as respiration, cardiovascular functions, skin functions as well as neuromuscular functions
  - care of adequate nutrition (*including supporting dysphagia management*)
  - early mobilization and training of (*active*) self-care functions
- Post-acute rehabilitation:
  - ensuring mobility and self-care
  - advice to the patients and their relatives caregivers
  - supporting specific interventions such as bladder and bowel management, stoma and tracheal canula management, and the use of assistive and technological devices
  - Cognitive behavioural treatments that follow 24-hour treatment principles need to be backed up and continued by nurses

# Core areas of nursing care



# “Traditional” vs. rehabilitation nursing

Dimension	„Traditional“ nursing	Rehabilitation nursing
Rehabilitation interventions (examples)	Washing a patient	Teaching ( <i>or training</i> ) a patient to wash him- or herself
	Feeding a patient	Teaching ( <i>or training</i> ) a patient to eat independently
	Dressing a patient	Teaching ( <i>or training</i> ) a patient to dress him- or herself
	Applying medicine to a patient	Teaching ( <i>or training</i> ) a patient to take his or her medicine by him- or herself
Challenges	Procedures are safe and ( <i>relatively</i> ) fast	Teaching and training take time and include the occurring of failures
	Procedures lead to good quality results	Results are strongly dependent on individual factors ( <i>e.g. capacity, learning effort etc.</i> )
	Procedures are well standardized, ( <i>relatively</i> ) fast, and cost-effective	Procedures need individual approaches and take time ( <i>and are costly</i> )
	Can be delivered mono-professional and does not have much interface problems	Overlap with other rehabilitation interventions
Expected outcome	Effects not sustainable after discontinuation of the intervention	Effects are sustainable
	Patient remains dependent	Patient may gain ( <i>at least some</i> ) status of independence
Ethical aspects	It may limit development of independent living ( <i>if long-term</i> )	Supports independent living and participation ( <i>according to UN-CRPD</i> )



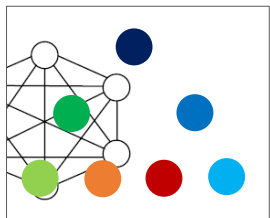
# Team-work in rehabilitation: challenges and relevance

# Rationale for team work in rehabilitation (1)

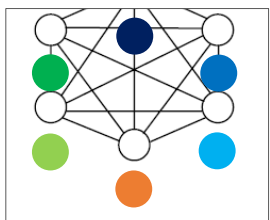
- The **range of problems** to be addressed in rehabilitation is extremely broad, including
  - functional loss due to disease, treatments and immobilisation
  - specific dysfunction related to the disease (*e.g. hemiplegia, dysphagia, aphasia*)
  - treatment side-effects (*fatigue, skin dysfunction etc.*)
  - mood problems, mental trauma
- The **needed interventions** are extremely diverse and include, e.g.
  - cardiovascular and respiratory training
  - training of movement functions including force and coordination
  - mobilization and training of activities of daily living
  - speech and language as well as dysphagia therapy
  - psychotherapy and neuro-psychology
  - and many others

# Rationale for team work in rehabilitation (2)

- A wide **range of competencies (professions)** are needed to address all problems of loss of body functions, activity limitations and participation restrictions
- As all interventions target one person, **good coordination** is essential
- As **competencies of rehabilitation professionals overlap**, good coordination is essential (*see next slide*)
- The **way team-members interact** is most relevant for outcomes (*and work satisfaction of team members*):

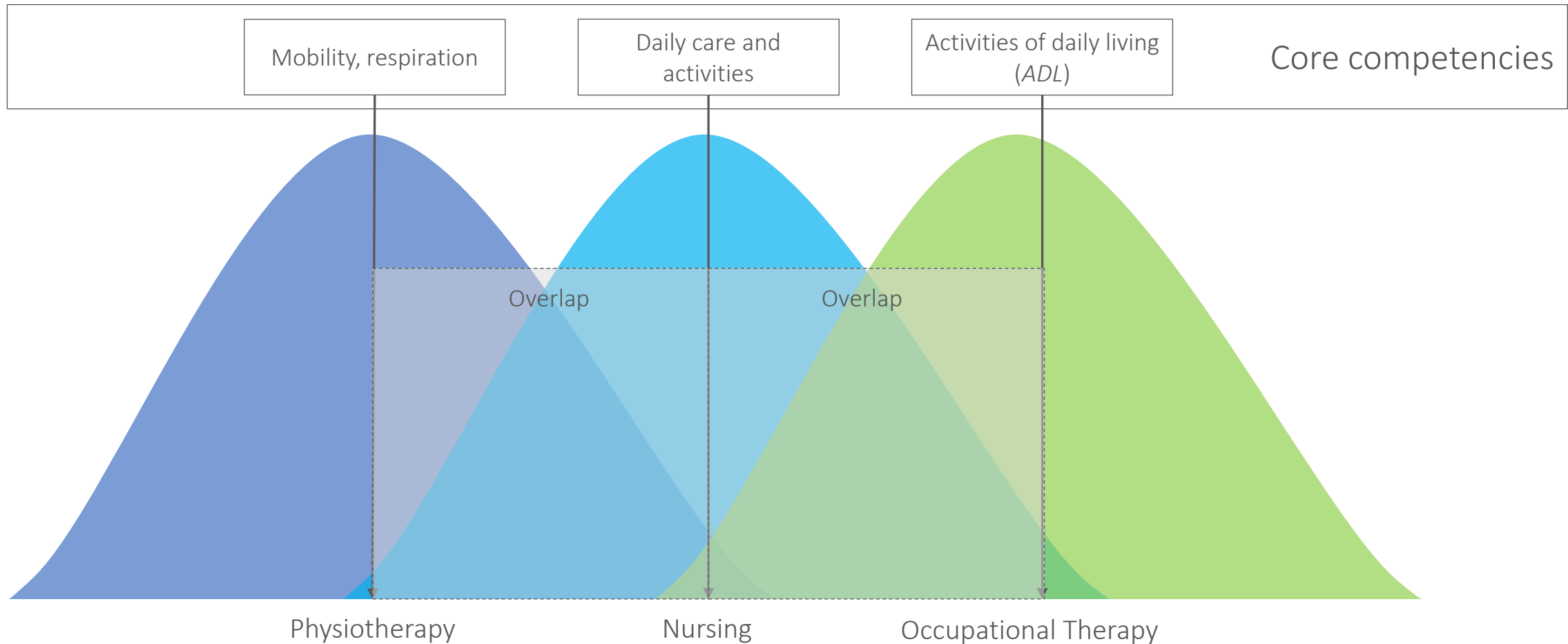


○ **multi-disciplinary team work**: without systematic structure and organized decision making process (*communication irregular and often bilaterally*)



○ **inter-disciplinary team work**: collaboration of team members putting together their knowledge, expertise and experience to solve problems together (*with regular meetings and multilateral communication*)

# Challenges for team work: core competencies & overlaps

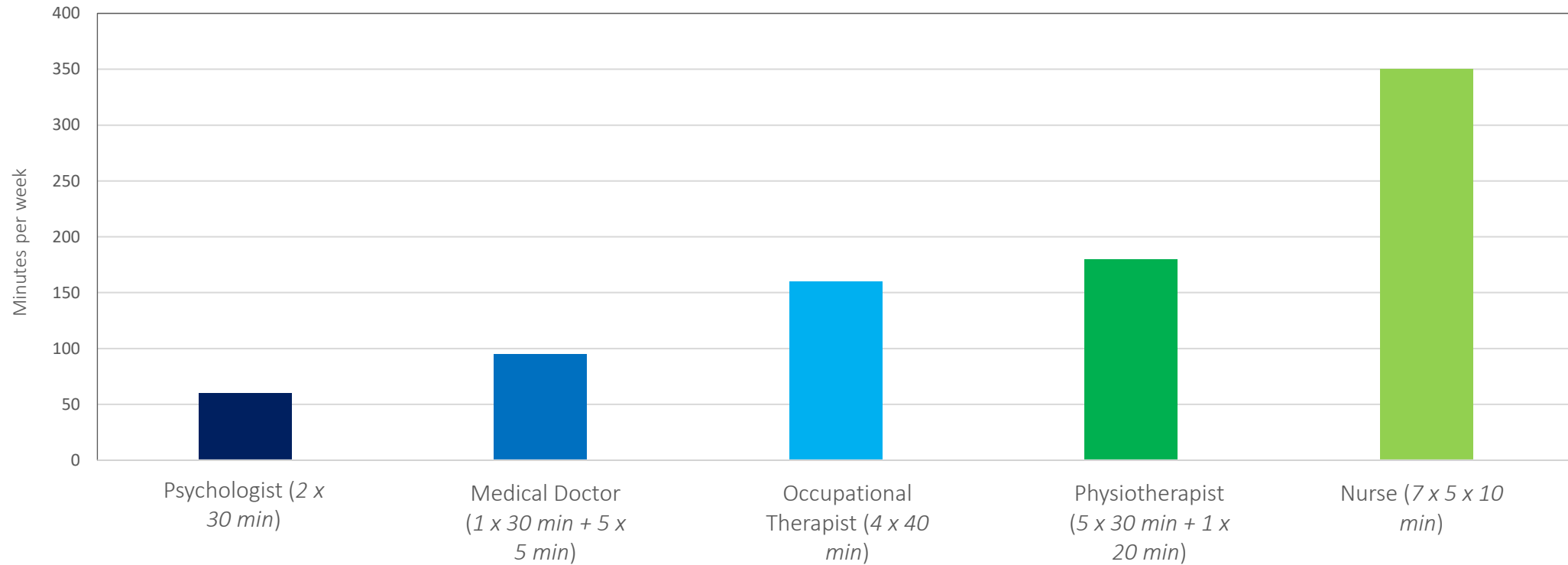


# Team collaboration

- **Key features** of successful team working include:
  - Agreed aims
  - Agreement & understanding on how best to achieve these  
*(avoiding jargon unique to a particular profession)*
  - Appropriate range of knowledge & skills for the agreed task
  - Mutual trust & respect
  - Willingness to
    - share knowledge & expertise
    - speak openly

Neumann V, Gutenbrunner C, Fialka-Moser V, Christodoulou N, Varela E, Giustini A, Delarque A: Interdisciplinary Team Working in Physical and Rehabilitation Medicine. J Rehab Med 2010; 42: 4-8

# Weekly patient contact times (*rough estimation*)



# Outcomes of multi-professional team work

J Rehabil Med 2012 Epub ahead of print

## SPECIAL REPORT

### MULTIDISCIPLINARY TEAM CARE IN REHABILITATION: AN OVERVIEW OF REVIEWS

Anne-Mette Momsen, PhD<sup>1</sup>, Jens Ole Rasmussen, PT<sup>2</sup>, Claus Vinther Nielsen, MD<sup>1,5</sup>,  
Maura Daly Iversen, DPT, SD<sup>3,4</sup> and Hans Lund, PhD<sup>4</sup>

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Table III. *Summation of the reviews' results on multidisciplinary rehabilitation team care, graded after level of evidence*

Outcomes, ICF-levels	Results, review(s), level of evidence A: based on meta-analysis, RCTs; B: based on RCTs, OCTs and observational studies
Body functioning	More effect on functional status (18) A, (14) B Faster recovery of functional status (18) A Less reduction of function and health (14) B Better mental status (14) B Less psychiatric symptoms (32) A Increased well being and satisfaction with life (14) A, (23) B
Activity	Increased level of ADL and performance of ADL (14) B Less falling and fear of falling (14) B
Participation	Less dependence on help from others (23) A, (21) B More self-efficacy (21) A, (14) B Increased social participation (1) B Faster return to work (24) A Less sickness absence (25) A
Other outcomes	Better survival (21) A, (14) B Fewer admissions to hospitals (32) A Shorter stay in hospital (18) A, (14) B Fewer post-operative complications (18) A Later readmission to hospital or moving to residential homes (14) B

ICF: International Classification of Functioning, Disability and Health  
RCT: randomized controlled trials(s); ADL: activities of daily living;  
OCT(s): observational controlled trial(s).

# Aspects of training



# German curriculum on rehabilitation nursing (1)

- Theoretical training (total of 100 units):
  - Health conditions: Internal Medicine
  - Health conditions: Neurology
  - Basics in rehabilitation-specific symptoms and syndromes (*e.g. mobility, muscle tone, paralysis, swallowing functions, consciousness etc.*)
  - Basics in specific rehabilitation treatments (*e.g. Botulinum, multimodal stimulation, communication strategies, prophylaxis of pressure sores, devices for positioning and other treatments*)
  - Basics in pharmacology (*with specific relevance for rehabilitation*)

# German curriculum on rehabilitation nursing (1)

- **Theoretical training** (*total of 100 units*)(*continued*):
  - Management of tracheal cannula
  - Nutrition management
  - Rehabilitation goal setting (*incl. ICF, 24-hour management, involvement of relatives etc.*)
  - Patient management incl. Legal issues, conflict management, crisis intervention, specific ethical aspects of rehabilitation
- **Additionally:**
  - intensive (*extensive*) practical training (*90 units*)
  - Internships (*e.g. in other rehabilitation professions*) (*30 units*)

# Outlook

# The situation in Germany

<https://www.icd-code.de/ops/code/8-559.html>

**OPS-2024 > 8 > 8-55...8-60 > 8-55 > 8-559**

## **8-55 Frührehabilitative Komplexbehandlung**

**Info:** Ein Kode aus diesem Bereich ist jeweils nur einmal pro stationären Aufenthalt anzugeben und darf nur solange verwendet werden, wie akutstationärer Behandlungsbedarf besteht

### **8-559 Fachübergreifende und andere Frührehabilitation**

**Exkl.:** Geriatrische frührehabilitative Komplexbehandlung (8-550 ff.)  
Neurologisch-neurochirurgische Frührehabilitation (8-552 ff.)  
Physikalisch-medizinische Komplexbehandlung (8-563 ff.)

**Info:** Strukturmerkmale: Frührehabteam mit fachärztlicher Behandlungsleitung (mindestens 5 Jahre in der Rehabilitationsmedizin tätig oder 5 Jahre Tätigkeit in der physikalischen und rehabilitativen Medizin oder Facharzt für physikalische und rehabilitative Medizin)

Strukturmerkmale: Vorhandensein von besonders geschultem Pflegepersonal für aktivierend-therapeutische Pflege (Therapeutische Lagerung, Mobilisierung, Körperpflege, Kleiden, Essen und Trinken; Ausscheidungstraining, Wahrnehmungsförderung, Aktivierungstherapie, Trachealkanülenmanagement u.a.)

Strukturmerkmale: Vorhandensein von mindestens 4 der folgenden Therapiebereiche: Physiotherapie/Krankengymnastik, Physikalische Therapie, Ergotherapie, Neuropsychologie/Psychologie, Psychotherapie, Logopädie/faziorale Therapie/Sprachtherapie, künstlerische Therapie (Kunst- und/oder Musiktherapie), Dysphagietherapie

Mindestmerkmale: Standardisiertes Frührehabilitations-Assessment oder Einsatz von krankheitsspezifischen Scoring-Systemen in mindestens 5 Bereichen (Bewusstseinslage, Kommunikation, Kognition, Mobilität, Selbsthilfefähigkeit, Verhalten, Emotion) zu Beginn der Behandlung

Mindestmerkmale: Wöchentliche Teambesprechung mit wochenbezogener Dokumentation bisheriger Behandlungsergebnisse und weiterer Behandlungsziele

Mindestmerkmale: Einsatz von mindestens 3 der oben genannten Therapiebereiche patientenbezogen in unterschiedlichen Kombinationen und unterschiedlichem Zeitaufwand

Mindestmerkmale: Entlassungsassessment zur gezielten Entlassung oder Verlegung des Patienten

Eine gleichzeitige (dauernde oder intermittierende) akutmedizinische Diagnostik bzw. Behandlung ist gesondert zu kodieren

<https://www.thieme-connect.com/products/ejournals/pdf/10.1055/a-0633-9376.pdf>

Originalarbeit

Thieme

## **Anforderungen an Einrichtungen der Phase C der Traumarehabilitation – Überregionale Traumarehabilitationszentren in der postakuten Rehabilitation**

### **Requirements for Phase C Facilities for Trauma Rehabilitation – Supra-Regional Trauma Rehabilitation Centers in Post-Acute Rehabilitation**

Autoren

Stefan Simmel<sup>1</sup>, Wolf-Dieter Müller<sup>2</sup>, Hartmut Bork<sup>3</sup>, Rainer Eckhardt<sup>4</sup>, Rolf Keppeler<sup>5</sup>, Christian Alexander Kühne<sup>6</sup>, Gert Krischak<sup>7,8</sup>

Für die postakute Rehabilitation ist folgender Personal-/Patientenschlüssel als Mindestanforderung einzuhalten (zusätzliche Aufgaben wie Sprechstundenbetreuung, Bereitschaftsdienste oder Untersuchung/Behandlung ambulanter Patienten sind in den u. a. Schlüsseln nicht enthalten):

- Oberarzt 1:30
- Stationsarzt 1:15
- Physiotherapeut/Krankengymnast 1:8
- Masseur und Medizinischer Bademeister 1:25
- Ergotherapeut 1:15
- Klinischer Psychologe 1:40
- Sportlehrer/Sporttherapeut 1:20
- Gesundheits- und Krankenpfleger entsprechend des durchschnittlichen Pflegeaufwandes

# Nursing in rehabilitation

*(health policies)*

Gutenbrunner C, Stievano A, Nugraha B, Stewart D, Catton H: Nursing - a core element of rehabilitation. Int Nurs Rev 2021; doi.org/10.1111/inr.12661

## Implications for nursing and health policy

In 2020, we propose that countries need to develop strategies and actions on the development of nursing's role in rehabilitation. The following outlines key components that would underpin these strategies:

a. **Education and Continuing professional development:** Transformational approach for the delivery of appropriate health care by providing education and training for health professional (ICN, 2019)

b. **A multidisciplinary approach to care:** Team-based approach to treat patients based on multidisciplinary relationships between health professionals. It should start from treatment plan, monitoring and jointly agreeing on adjusting/changes of treatment plans (ICN, 2019).

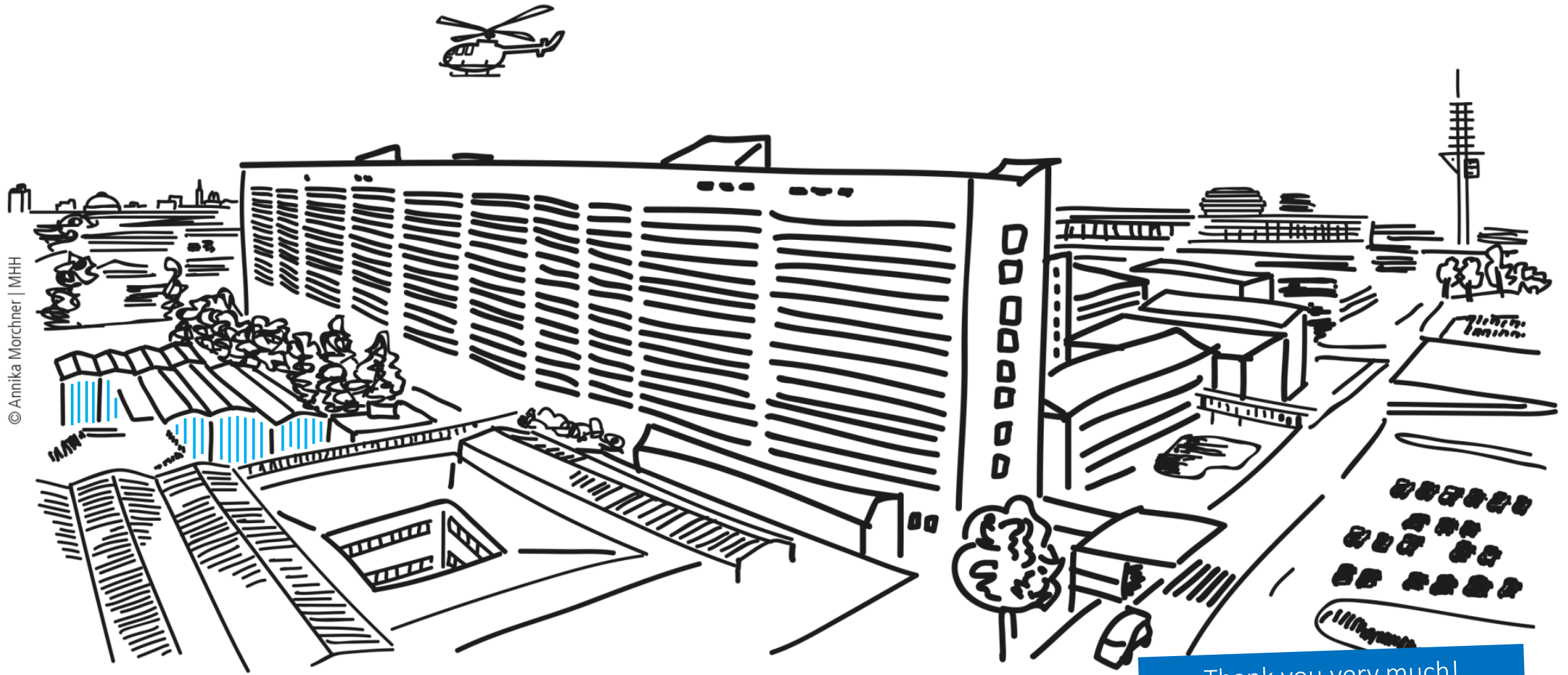
c. **Nursing leadership and involvement in high-level decision making:** Nursing leadership in policy and decision making should be strengthened. Investment in nursing leadership will be required. Additionally, investment in nursing research related to rehabilitation, such as cost effectiveness and efficacy of interventions and knowledge translation into evidence-based practice (ICN, 2019).

d. **Investment in Rehabilitation:** Build up quality rehabilitation facilities and services in acute, post-acute and long-term settings including community-based rehabilitation.

e. **Building the Nursing rehabilitation workforce:** Building up the numbers and skills of nurses specialized in rehabilitation to improve access to quality, cost effective and sustainable treatments (ICN, 2019).

# Conclusions

- It is evident that **nursing plays an important role in rehabilitation**
- Rehabilitation **must be a topic in all nursing schools** or bachelor/master programs
- For high-quality rehabilitation nursing, **special trainings is needed**
- Rehabilitation nursing should be **integrated in multi-professional team work**
- Rehabilitation nursing concepts should be **included in all rehabilitation guidelines** and standards
- More **awareness on rehabilitation nursing** is needed, both in general health community and in the nursing community
- **Research is needed** on outcomes of rehabilitation nursing (*vs. “traditional” nursing*) and best practises of rehabilitation nursing interventions



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Thank you very much!

Rolle der Pflege in der Rehabilitation

Prof Christoph Gutenbrunner, MD, PhD, FRCP, SFEPRM



Rehabilitation International



Hannover Medical School