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Ottobock Scandinavia

Make the difference for your patient with a neurological disorder

Quality for life

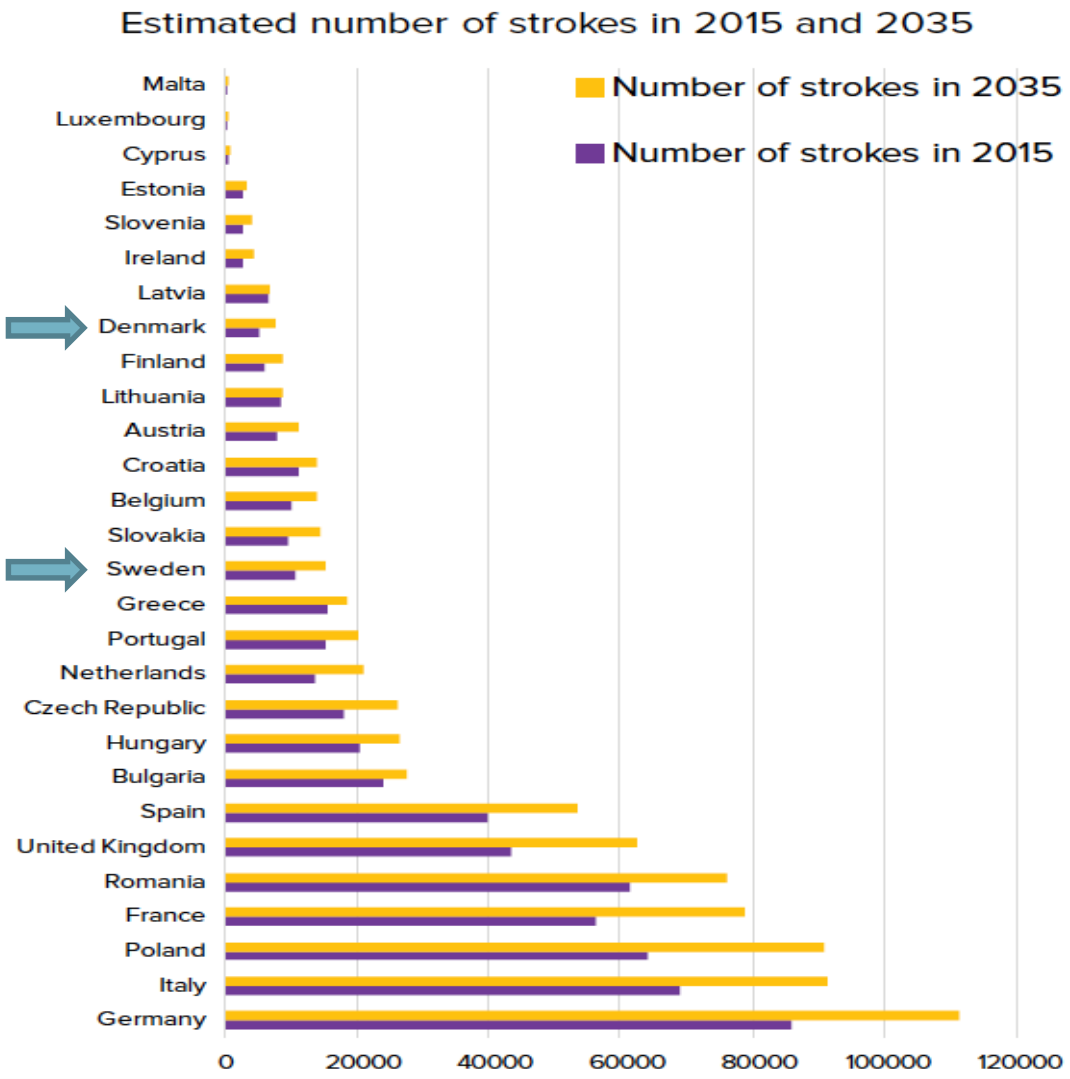
Demographic change

Population > 65

	2015	2030	2050	Percentage Increase
Total World Population	7,3 Bil.	8,2 Bil.	9,6 Bil.	32%
Population > 65	600 Mio.	973 Mio.	1,5 Bil.	150%

www.siemens.com/annual/14/de/download/pdf/Siemens_JB2014_Healthcare-Kennzahlen.pdf

Scenario growth of stroke 2011 - 2035



Source: Nederlandse Hartstichting

Over the next 30 years:

Due to the aging population, the estimated number of elderly people (>75 years) will more than double.

As a result of this growth and aging, the number of people with a stroke will grow by 84% during this time period.

Growing target group of CVA

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+ Growing target group
A growing group of patients is experiencing physical problems due to a neurological disorder.

+ Lot of possibilities, little known
There is a fitting mobility solution for almost all these patients. Unfortunately very few professionals are aware of the available solutions.

+ Big opportunity
As a professional, you can make a huge difference in the quality of life of patients with a neurological disorder if you have fitting solutions at your disposal.

Largest patient group at a glance: CVA

Market size: stroke and trends neurological condition

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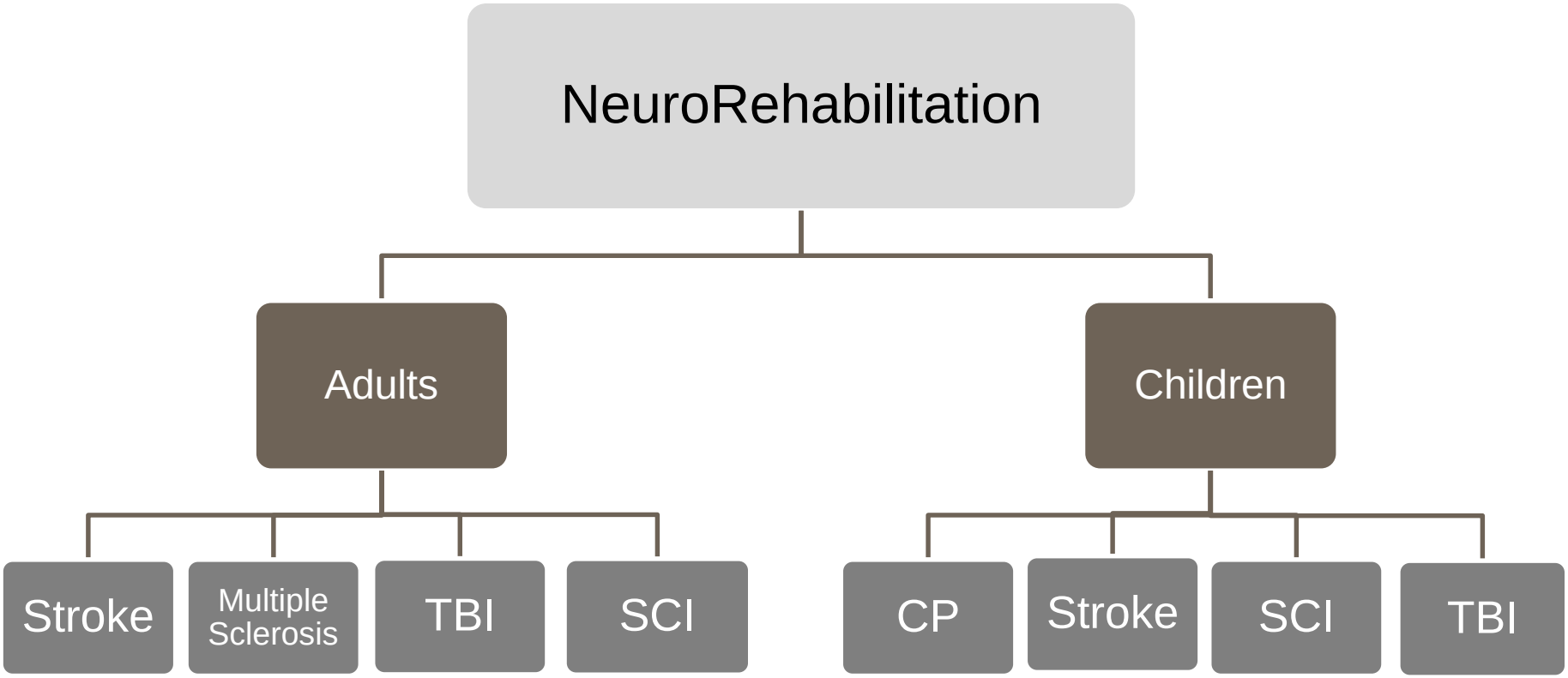
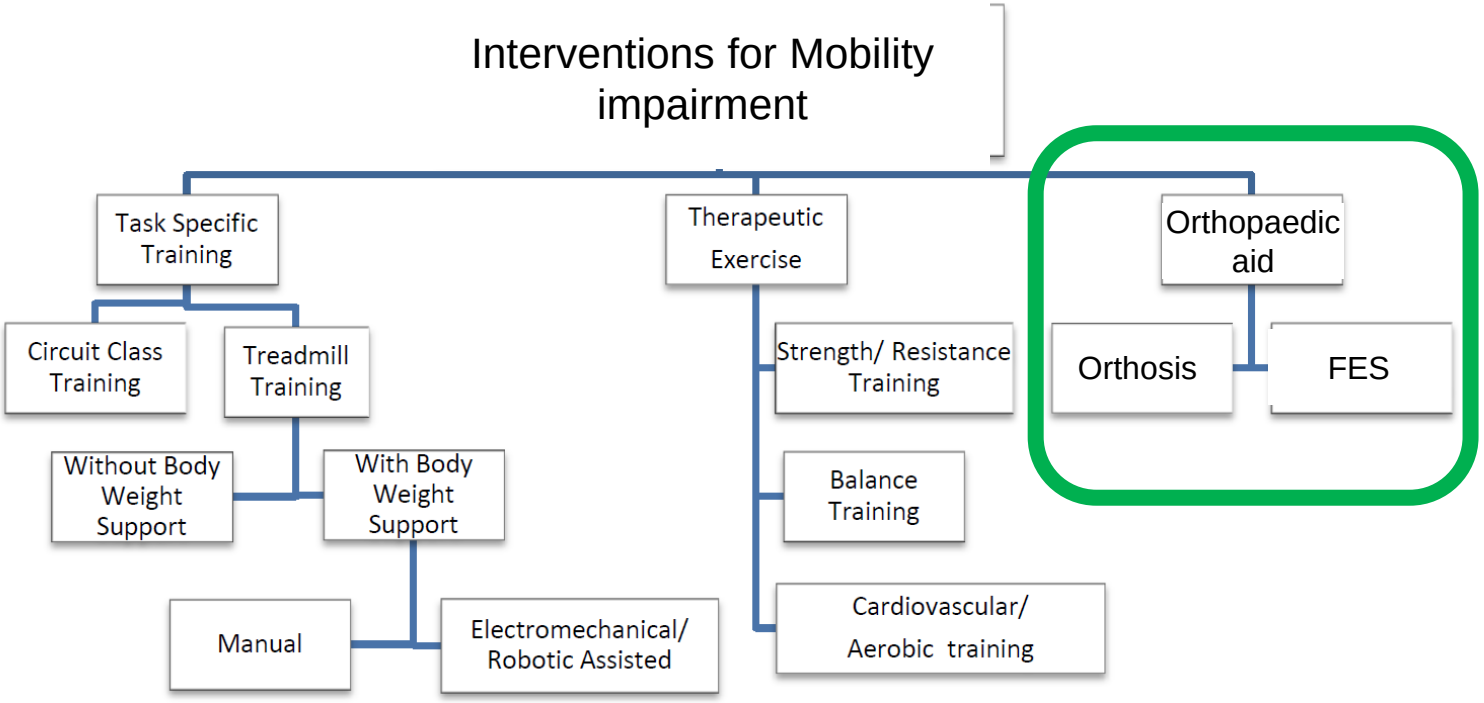

NeuroRehabilitation
Adults
Children
Stroke
Multiple Sclerosis
TBI
SCI
CP
Stroke
SCI
TBI



Teasell R et al. Stroke Rehabilitation Clinician Handbook - Lower Extremity and Mobility Post Stroke. 2014, *www.ebrsr.com*

Level	Rating	Description
1a	Strong	The findings were supported by the results from a meta-analysis, when available or from the results **of 2 or more RCTs** (Randomized (aselect) Controlled Trial) of at least “fair” quality. (Control Group & Intervention Group).
1b	Moderate	The findings were supported by **a single RCT** of a least “fair” quality.
2	Limited	The findings were supported by at least one non-experimental study with a minimum of 10 subjects in each arm (nonrandomized CT, cohort studies etc.)
3	Consensus	In the absence of evidence, agreement by a group of experts on the appropriate treatment course. Consensus opinion is regarded as the lowest form of evidence. As such, it is arguably not considered evidence at all.
4	Conflicting	Disagreement between the findings of at least 2 RCTs. Where there were more than 4 RCTs and the results of only one was conflicting, the conclusion was based on the results of the majority of the studies, unless the study with conflicting results was of higher quality.

EBRSR :Evidence-Based Review of Stroke Rehabilitation, Research Group, 2014

Evidence of lower extremity Interventions

There is strong (Level 1a) evidence that the **Bobath approach is not superior** to other therapy approaches. The Bobath approach results in longer lengths of stay.

There is moderate (Level 1b) evidence that the **Motor Learning Approach is superior to a conventional physiotherapy** approach for achieving improvements in functional outcome.

There is strong (Level 1a) evidence that **dynamic or standard AFOs improve** elements of **gait.**

There is strong (Level 1a) evidence that **FES & Gait retraining** results in **improvements in hemiplegic gait.**

There is conflicting (Level 4) evidence that **robotic devices are superior** to conventional gait training in the improvement of functional walking performance.

Teasell R et al. Evidence-Based Review of Stroke Rehabilitation - Mobility and the Lower Extremity; 2014, ***www.ebrsr.com***

Orthopaedic solutions

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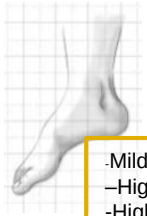


Foot Drop

- Mild weakness knee extensors 2-4
- Higher knee extension moment
- Higher forefoot energy restoring

- High support of Gait cycle
- Plantar flexors weakness 0-4
- Mild weakness knee extensors (fatigue) 3-5
- Knee instability valgus/varus
- High energy restoring

- Support of Gait cycle
- Plantar flexors weakness 3-5
- Normal knee extensors
- Energy restoring
- Low Knee instability valgus/varus

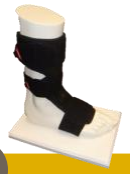
- Low support of the Gait cycle
- Normal plantar flexors
- Normal knee extensors
- Low energy restoring
- Stable knee joint

- Flexible supination correction
- Normal plantar flexors
- Normal knee extensors
- No energy restoring
- Stable knee joint

- Short term use
- Normal plantar flexors
- Normal knee extensors
- No energy restoring
- Stable knee joint

- Weakness dorsiflexors
- No energy restoring
- Without shoe useable
- Nearly full Propriozeption

Functional Electrical Stimulation



Normal Ankle stability — Low Ankle Stability

Multi disciplinary team

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Physiotherapist:

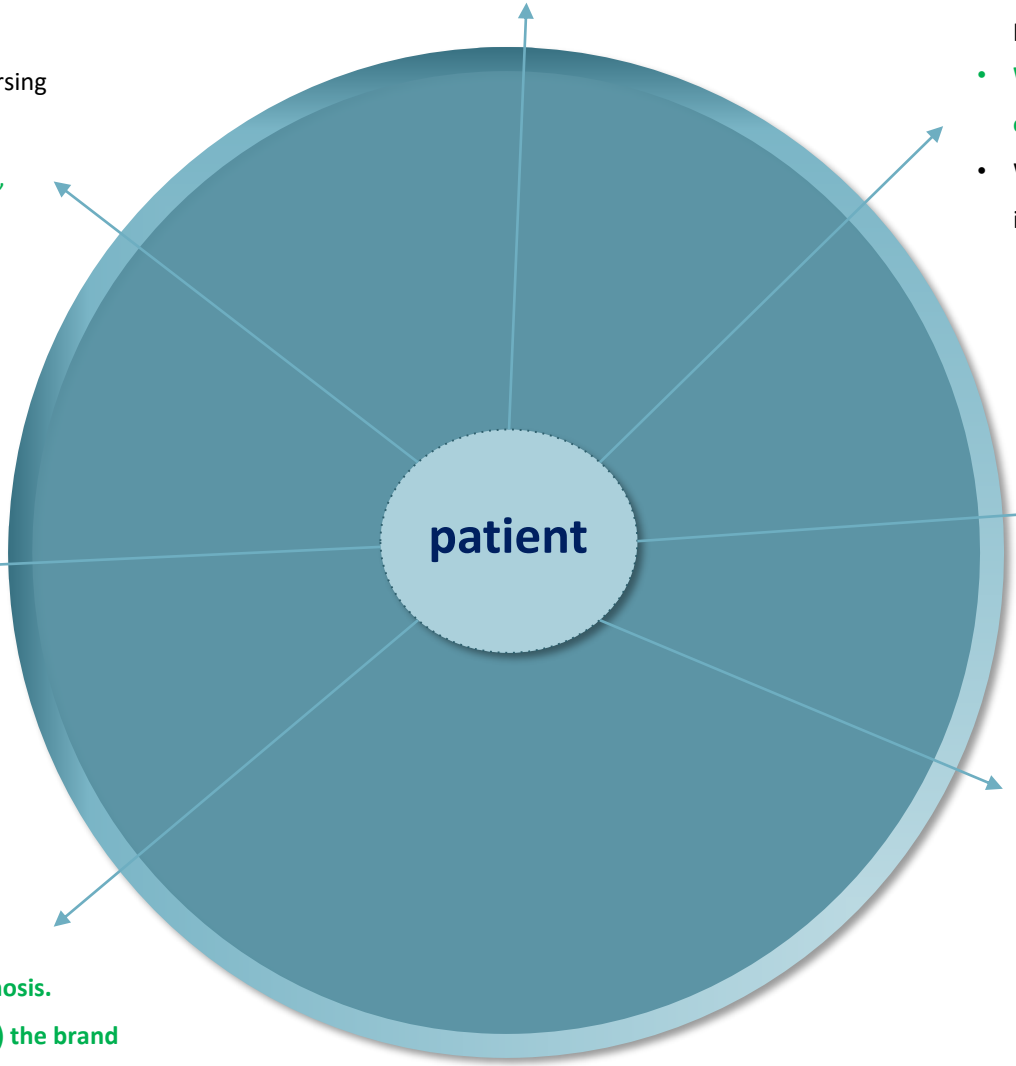
- **Advises on the use of orthosis.**
- Works together within an interdisciplinary team.

Rehab doctor:

- Coordinates the rehabilitation program.
- **Writes recommendation for orthosis. (product level)**
- Works together within a interdisciplinary team.

Geriatric specialist:

- Conducts rehabilitation in nursing homes
- Allowed to prescribe orthosis, rarely happens.
- Works together within a interdisciplinary team.



Payer:

- Determines compensation.
- **Decision maker in reimburse or**

Neurologist:

- Determines the rehabilitation program together with the rehabilitation doctor.

Environment (Family)

- Confidential counsellor for the patient, crucial for the patient.
- Seeks (along) solutions and tools and attends visits to doctor.

CPO:

- **Measurement orthosis.**
- **Determines (often) the brand of the orthosis.**

What‘s needed

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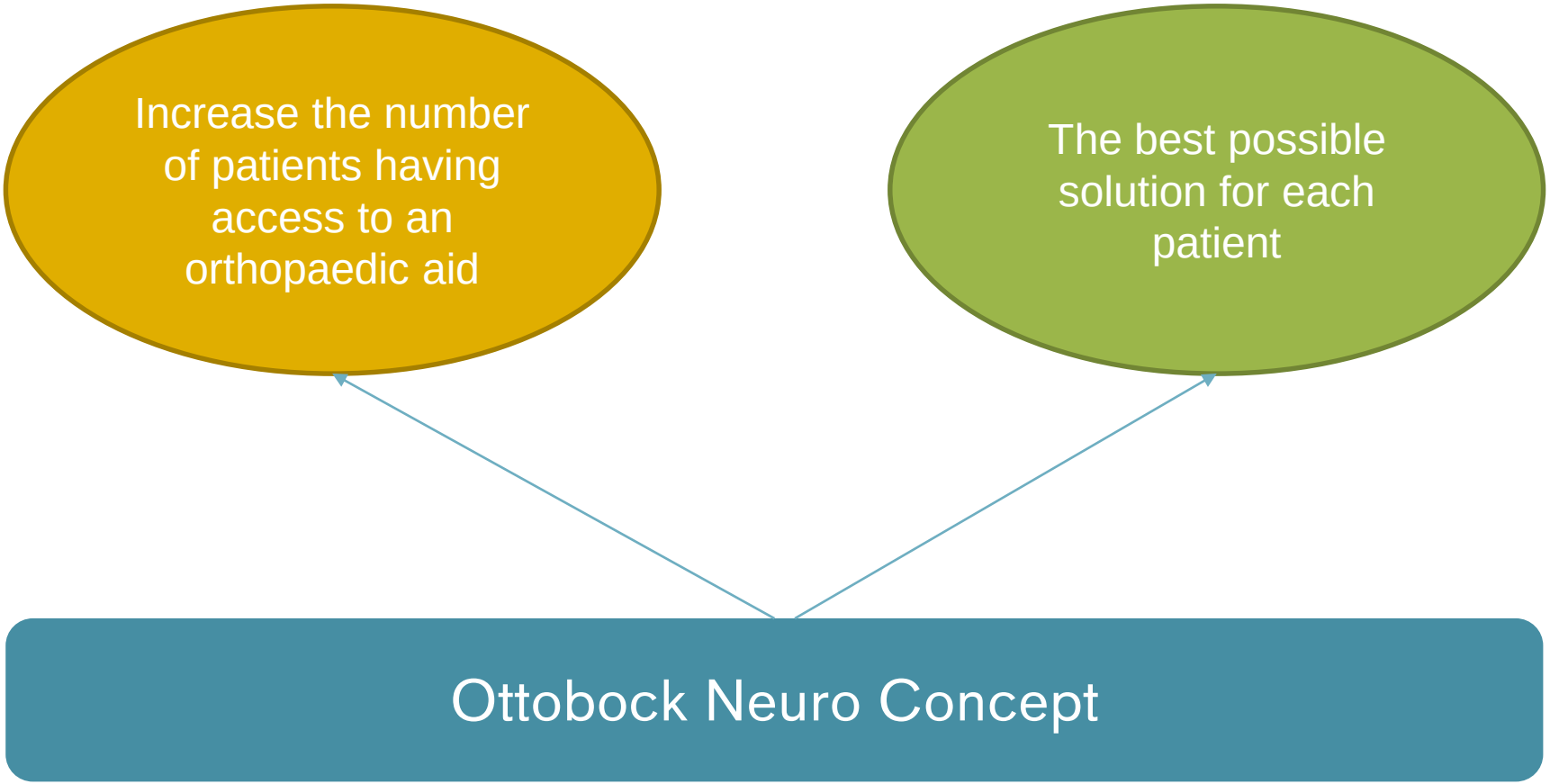
Increase the number of patients having access to an orthopaedic aid
The best possible solution for each patient
Ottobock Neuro Concept

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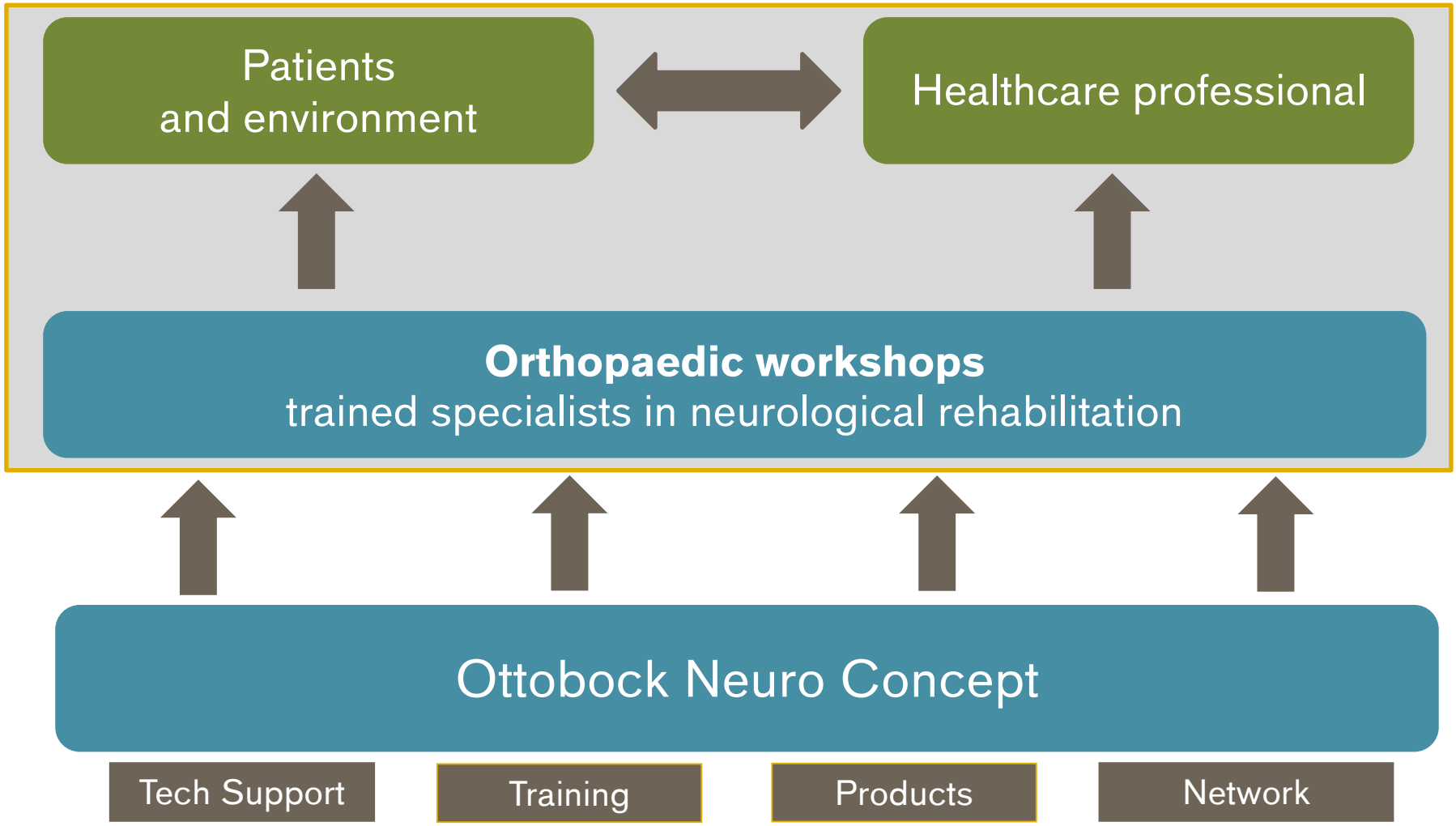

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CPO

+ More knowledge as a result of targeted trainings

+ Increased number of patient helped with a orthopaedic device

Patient

+ Optimal care due to highly trained healthcare professionals in all steps of the treatment

Physiotherapist

+ Improved patient outcome

+ Optimized rehabilitation with the customized aid

+ Increased knowledge about the possibilities with an orthopaedic device to achieve the optimal outcome

Specialist

+ Increased knowledge about the possibilities with an orthopaedic device to achieve the optimal outcome

Payer

+ The best possible cost-effective solution for each user

Training and education

Orthosis solutions for neurological conditions

Module 1 The optimal Ankle-Foot Orthotics (AFO) for your patient

Module 2 The optimal Knee-Ankle-Foot Orthosis (KAFO) for your patient

Module 3 Introduction of the Stance Control Orthotics

Training and education

Functional Electrical Stimulation (FES) for neurological conditions

Module 1 Introduction FES(T)*

Module 2 Baseline Training FES(T)

Module 3 Advanced Training FES(T)

* T = Therapeutically

Ottobock Neuro Concept

With the utilization of a complete network around neuro rehabilitation, we will be able to

Help more people with an orthopaedic device

Offer the best possible solution for each user