

Adjustment of physical therapy for the rehabilitation of locomotor function in acute incomplete spinal cord injury (iSCI) – The MALT project

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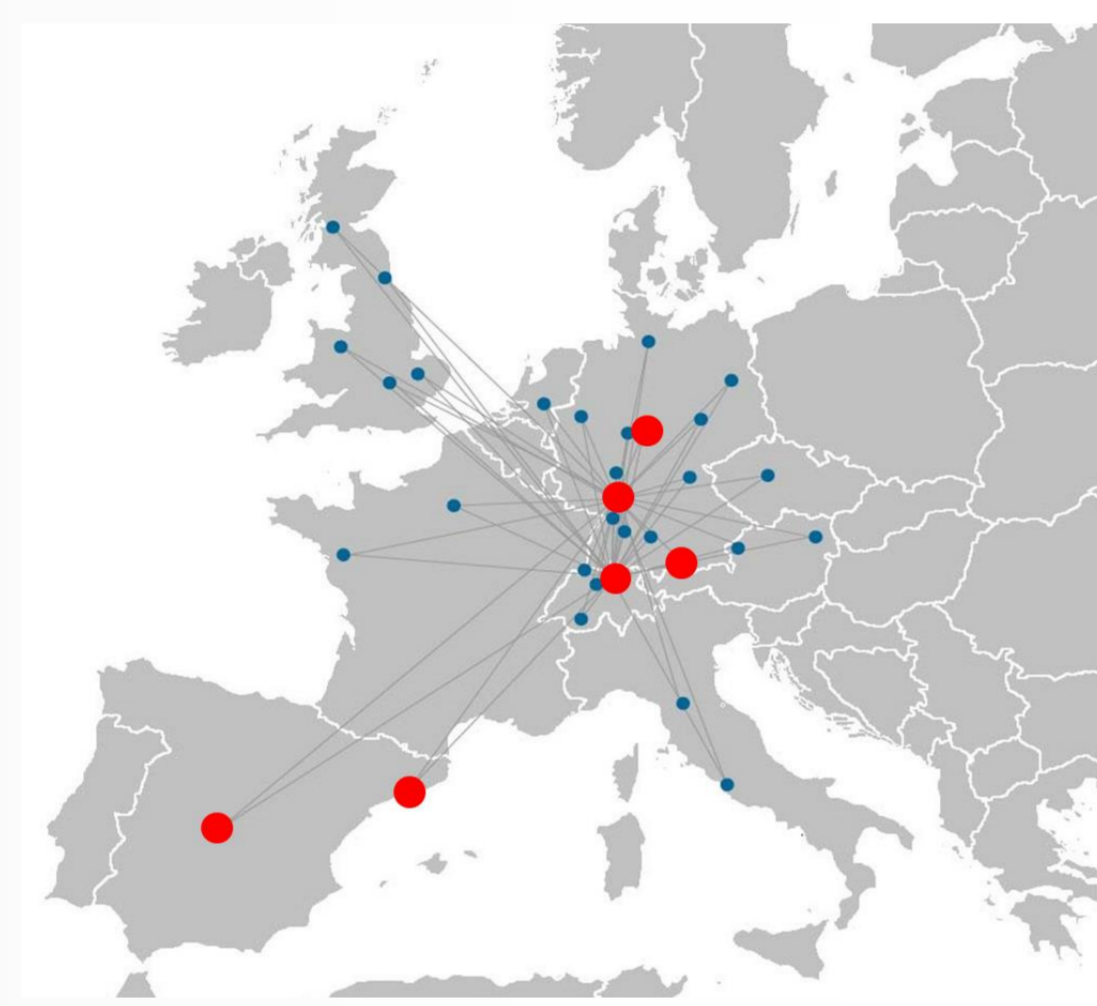
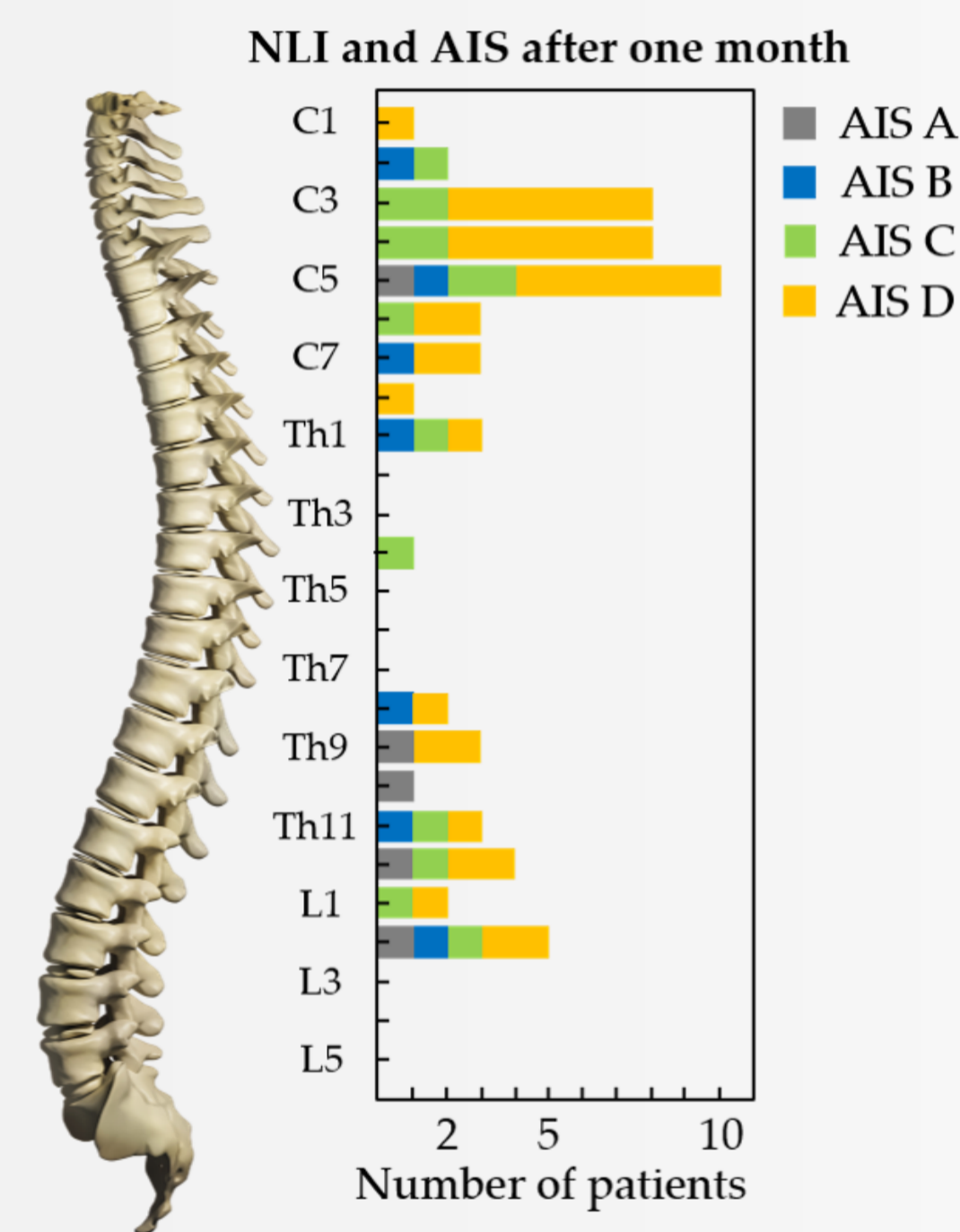
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Objective

- Monitoring the physiotherapy sessions focussing on locomotor function in iSCI patients
- Reveal the effect of impairment and stage of recovery on physical therapy interventions

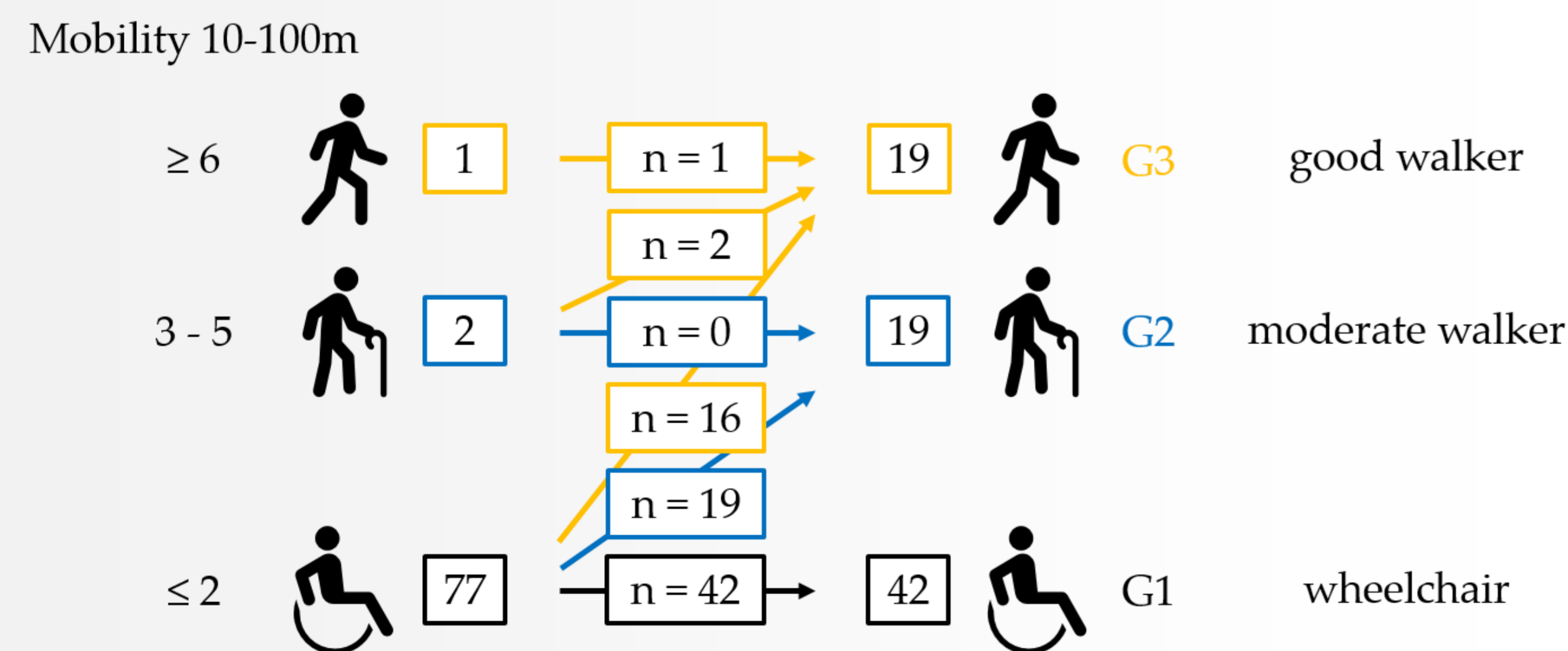
➔ Establish standardised guidelines for rehabilitation of locomotor function in iSCI

Subjects and Methods

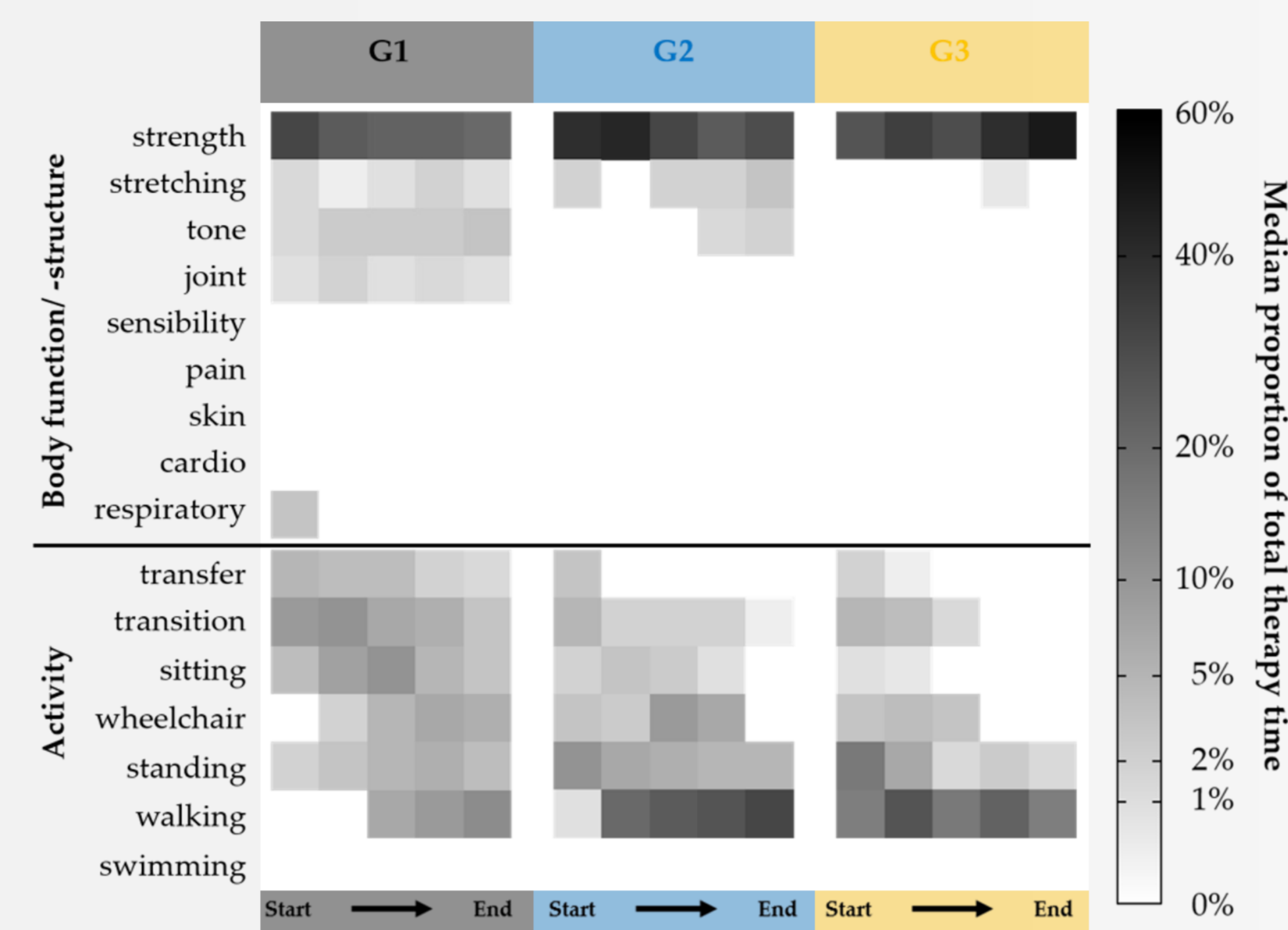


- 6 EMSCI centers
- 80 patients
- Recording of content and duration of therapies using the SCI - Intervention Classification System (SCI-ICS)¹

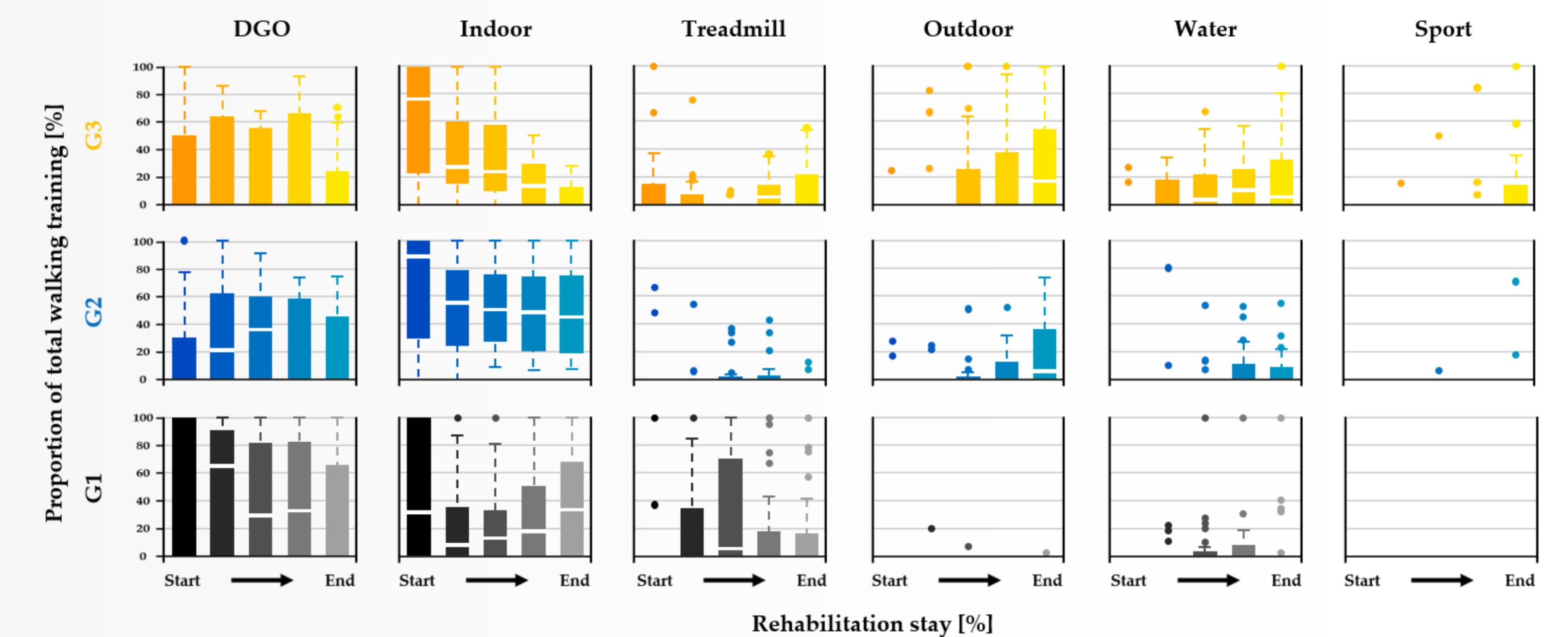
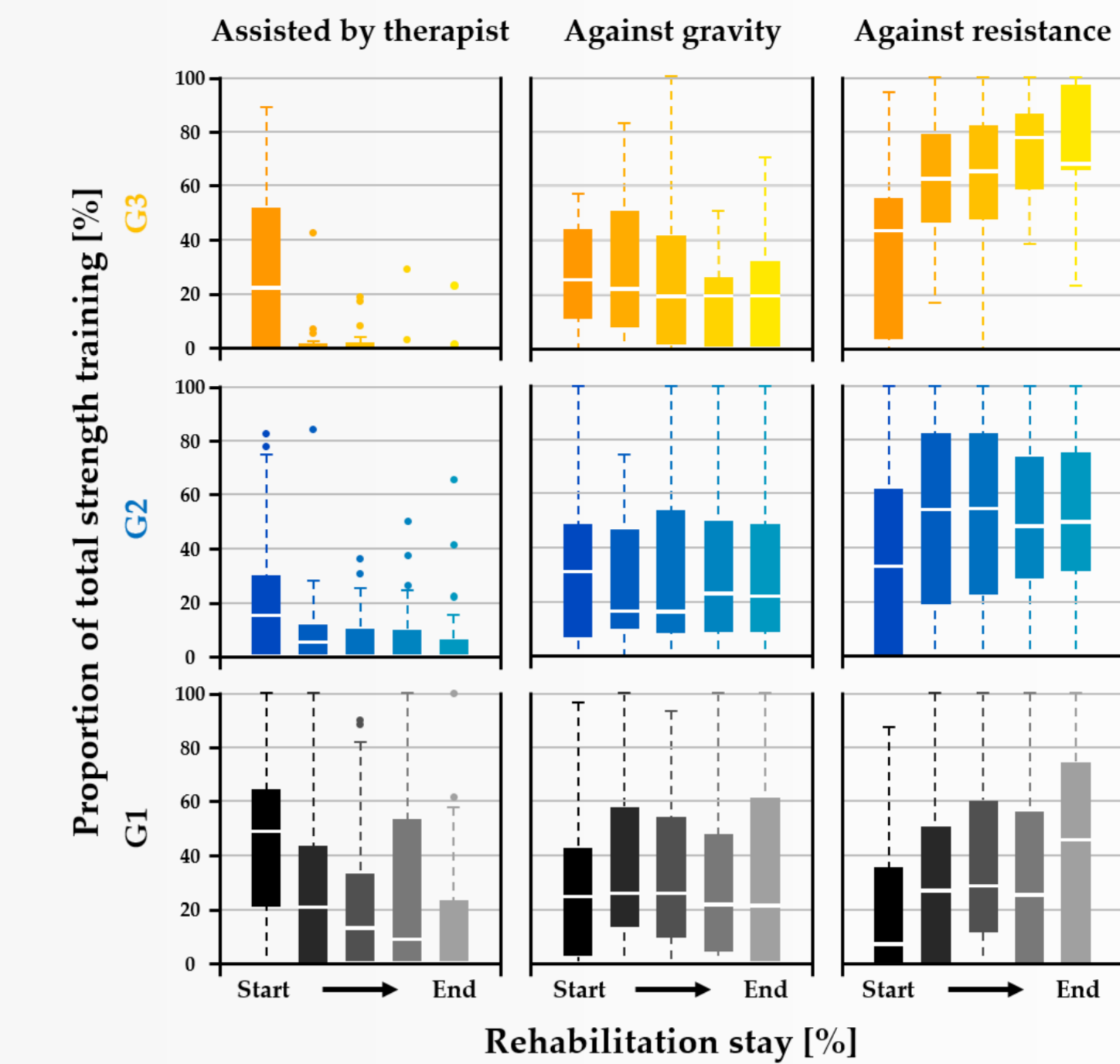
- Patients were divided into three subgroups (G1-G3) using SCIM III² 10-100m



Results



- Strength training is applied most intensively in all outcome groups
- Training of activities is well related to the improvement of locomotor function
- Locomotion is significantly more trained in G3 and G2 compared to G1



- Strength and locomotion trainings show specific patterns of application across outcome groups
- Locomotion training in more challenging modalities was conducted increasingly towards end of rehabilitation

Conclusion

- Therapy content regarding activity-related interventions adapts to progressing ambulation
- Therapy content regarding body function remains relatively constant
- Strength training content adapts in terms of level of assistance

➔ The MALT project reveals the current state of physical therapy of locomotor function in iSCI and potentially enables the definition of standardised, effective rehabilitation programs

Outlook

- MALT v2 in development:
 - additional documentary of aim of therapy sessions
 - Better understanding of therapy content

References

- 1 van Langeveld et al., *J Neurol Phys Ther.*, 2008
- 2 Itzovich et al., *Disabil Rehabil*, 2007

Source of pictures:
www.emsci.org



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