REHAB WEEK2023
24-28 SEPTEMBER 2023
SINGAPORE

rehabweek
Singapore '23

Category: Clinical Application of Technology

Workshop Title: Value-Based Neuro-Therapy – What is Needed for Useful Data Interpretation? - A Live Demonstration of Data-Driven Robotic Gait Therapy, Intra-Session Labeling and Near-Time Data Reporting

Workshop Organizer(s): Dennis Veit & Alison Watt

In person Speaker(s):

- Dennis Veit
- Rupert Kluhs-Preißler
- Gernot Greimler
- Alison Watt

Workshop Time: 10:30 - 12:00

Attendee Engagement: Mentimeter, interactive group discussion, live demo

Abstract:

As there is more and more requirement for shifting from generalized therapy approaches to therapy sessions and patient journeys customized to the individual's impairments and treatment goals, there is also a growing need for valuable, objective and easily accessible outcome data and their interpretation.

We will be showing how the implementation of technology into clinical practice gives clinicians the possibility to use e.g. sensor data from these devices to customize a therapy session to the patient's individual impairments and treatment goals and gather information for valuable reporting in neuro-rehabilitation.

In the first part of the workshop, we will be presenting a real patient case and shortly explain the clinical reasoning behind the chosen therapy approach. The attendees will be interactively discussing which information would be useful to see during and directly after a therapy session with this patient and if this information would be enough to interpret a therapy outcome.

We will then be performing a live gait therapy session in a robotic exoskeleton, demonstrating the use of a specially developed intra-session labeling system and additional wearable sensors. After the therapy session we will demonstrate the near-time data reporting and talk through the interpretation of the data together with the attendees.

To evaluate the therapy shaping process, we will conclude the workshop by discussing advantages and disadvantages of this approach and gathering opinions on how to further develop the technology and data-driven reporting.