Establishing an adjunct treadmill walking program to increase locomotor training during intensive rehabilitation

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Treadmill training is recommended for gait rehabilitation in various populations with physical disabilities

However, it requires time, which is hard to fit in one-hour daily rehabilitation sessions

Objectives: To document
- How the offer of a adjunct treadmill therapy was taken by clinicians
- how much training time it added to regular intensive rehabilitation

Design: Pragmatic longitudinal study

Equipment: split-belt treadmill with a harness for security or body-weight support

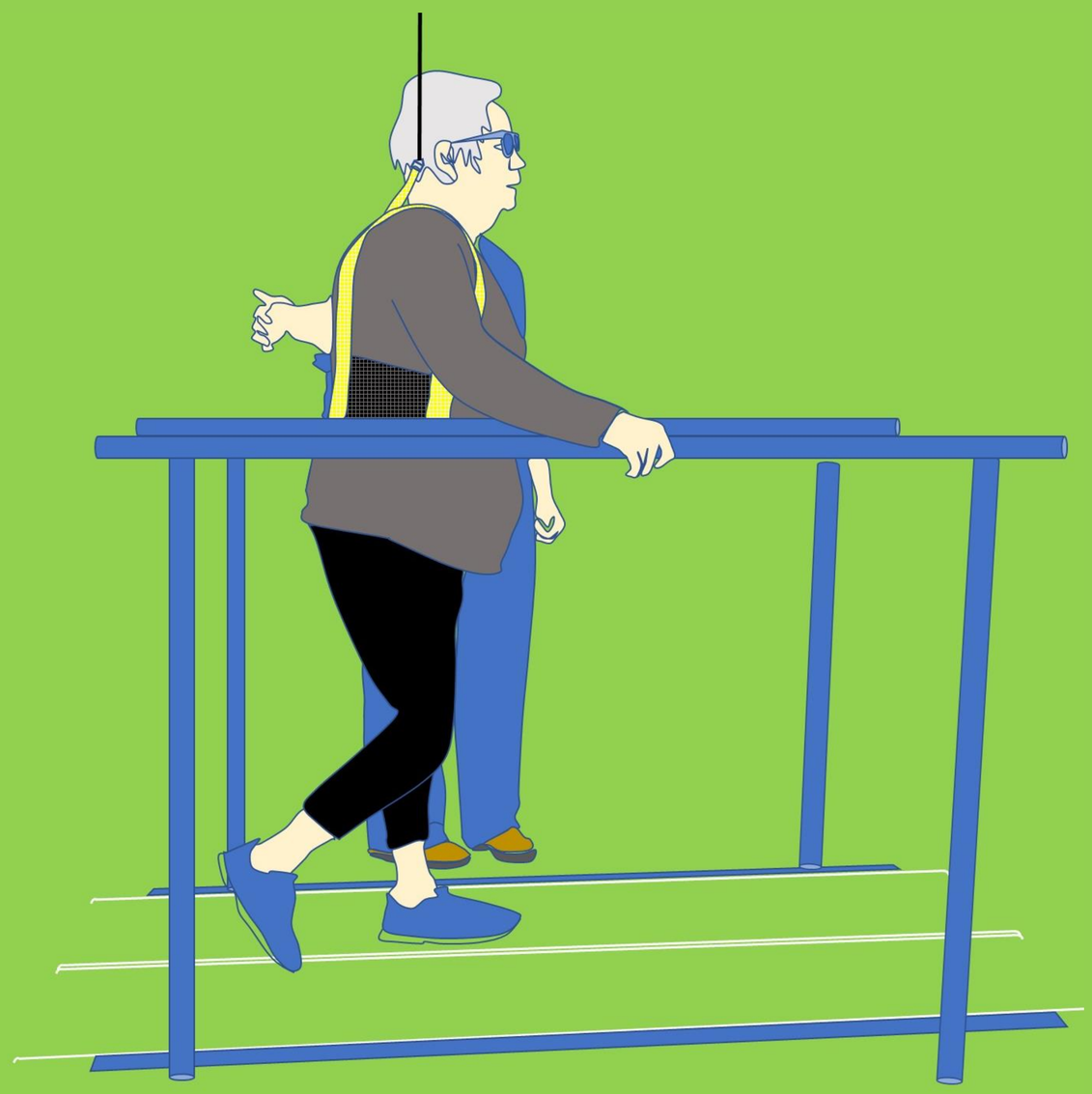
Reference process to the program co-developed by clinicians, managers, patients and researchers

Participants and setting: Inpatients from the associated 153-bed, intensive rehabilitation hospital

Interventions: Treadmill gait training in a research lab

Next step: to optimize its economic model (number of training periods and human resources)

Health professionals do refer patients to an adjunct treadmill training program to increase gait rehabilitation intensity in a rehabilitation facility



Adjunct treadmill training program:
Eight 40-min time slots per week (Tuesdays and Thursdays)

Results:
- 44 individuals patients referred
  - 8 with lower-limb amputation
  - 10 with spinal cord injury
  - 5 with stroke and other neurological syndromes
  - 1 with traumatic brain injury

- 7 sessions (SD 6) per participants
Range: 1-28 sessions

- Average additional active training:
Time per participant: 86 (SD 72) min
Range: 7-323 min

- 309 sessions out of 344 (89.8%) available time slots (43 weeks)

- References made by:
  20 different PTs out of 39

- Changes in treadmill comfortable gait speed:

Pre-training speed = 0.53 (0.26) m/s
Post-training speed = 0.72 (0.28) m/s

Paired t-test: t=6.97, p<0.01
Cohen's d=1.05, CI=[0.68;1.42]

