

The clinical value of power standing wheelchairs

PRESENTERS

Nooijen C, Senior researcher¹, *Handberg Gohlke J*², *Engdahl A-M*, Customer insights¹

¹ Permobil

² Aarhus Kommune, Denmark

LEARNING OBJECTIVES

- To be able to discuss what scientific evidence is available on the impact of power standing on clinical, functional and psychosocial outcome measures
- To be able to give examples of how users experience power standing and in what situations it can be used
- To have a better understanding of which users can benefit from power standing wheelchairs

The first part of the workshop summarizes findings from a systematic literature review on the clinical, functional and psychosocial impact of standing for power wheelchair users. The systematic search identified 363 publications, which were reviewed by title, abstract and full text, after which 41 publications were included. Results show that standing can contribute to bone loading and pressure redistribution, and that standing might have a positive impact on bowel- and bladder function, spasticity and range of motion. A potential negative effect includes shear forces when transferring into and out of standing. The literature further shows that standing can have a positive impact on personal care, communication, and quality of life.

The second part presents findings from a research project “I can do more when I stand”. In this case-series study, eight persons received a power standing wheelchair and were followed for one year. Findings include device-measured power standing use, measures of health, participation and quality of life. Results show that the use of the standing function varied greatly within and between participants. Furthermore, participants reported on an increased ability to perform activities of daily living and an increased experience of freedom. The biggest barrier to the use of the standing wheelchair in everyday life was the size of the chair in terms of length, width, and height.

The last part includes qualitative findings such as quotes from users on their experiences and pictures showing situations in which power standing can be used, such as in a non-adapted kitchen.