Wheelchair Assessment & Provision: Bridging the Gap

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**Abstract**

Wheelchair provision processes fall short when aspiring to meet people’s posture, seating and mobility needs across the life course. Major gaps within the provision system exist, affecting health and wellbeing of key stakeholders involved. Individual wheelchair users and families should be front and centre of the provision process, yet they are receiving incomplete services. Ad hoc service delivery systems rarely maintain a holistic approach, focusing on one or two aspects, such as assessment and delivery. These aspect also lack uniformity, depending on the service attended, the skill of the therapist and vendor, goals prioritised and funding available. Internationally there is a drive to bridge the gaps within the system, to ensure access to appropriate wheelchairs. This one-day workshop will apply a systems thinking approach, addressing all elements, which should be considered when striving to provide services that will meet people’s needs throughout life. It will provide practical solutions to prioritization, information gathering, goal setting, understanding body functions and structures, mat assessment, choosing the right wheelchair and seating, maintaining health and wellbeing across the life course, maintenance and management, outcome measure and sustainability indicators. A whole systems approach is essential, working together as wheelchair professionals to meet this primary assistive technology need.

**Learning Objectives:**

1. Understand the importance of referral prioritisation to meet specific needs

2. Apply Occupational Profile principles when gathering information and setting goals

3. Understand Body function and structures to build confidence when conducting mat assessments

4. Evaluate wheelchair and seating products appropriately by understanding the importance–trialling, home, school, work visits and measurement.

5. Understanding the principles of wheelchair education and training to enhance the health and wellbeing of wheelchair users

6. Create a plan to develop follow up and management systems through use of outcome measures and sustainability indicators (issue across the life course children, adults, older people

7. Understand the need to develop wheelchair repair and emergency services

8. Remember concepts and principles discussed and learnt and plan to apply into practice

**Content references:**

Bray, N., Noyes, J., Edwards, R. T., & Harris, N. (2014). Wheelchair interventions, services and provision for disabled children: A mixed-method systematic review and conceptual framework. *BMC Health Services Research, 14*(1). doi: 10.1186/1472-6963-14-309

Gowran, R. J., McKay, E. A., & O'Regan, B. (2014). Sustainable solutions for wheelchair and seating assistive technology provision: Presenting a cosmopolitan narrative with rich pictures. *Technology and Disability, 26*(2-3), 137-152. doi: 10.3233/TAD-140408

Lange, M.L. & Minkel, J.L. (2018). Seating and wheeled mobility. a clinical resource guide. New York, NY: Slack Inc.

MacLachlan, M., Banes, D., Bell, D., Borg, J., Donnelly, B., Fembek, M., . . . Hooks, H. (2018). Assistive technology policy: a position paper from the first global research, innovation, and education on assistive technology (GREAT) summit. *Disability and Rehabilitation: Assistive Technology*, 1-13. doi: 10.1080/17483107.2018.1468496

MacLachlan, M., & Scherer, M. J. (2018). Systems thinking for assistive technology: a commentary on the GREAT summit. *Disability and Rehabilitation: Assistive Technology, 13*(5), 492-496. doi: 10.1080/17483107.2018.1472306

McSweeney, E., & Gowran, R. J. (2017). Wheelchair service provision education and training in low and lower middle income countries: a scoping review. *Disabil Rehabil Assist Technol*, 1-13. doi: 10.1080/17483107.2017.1392621

Pope, P.M. (2007). Severe and complex neurological disability. Management of the physical condition. Philadelphia, PA: Elsevier Ltd.

Wiseman, L. M., & Whiteford, G. (2007). Life History as a Tool for Understanding Occupation, Identity and Context. *Journal of Occupational Science, 14*(2), 108-114. doi: 10.1080/14427591.2007.9686591

**Bio’s**

Rosie is a lecturer in occupational therapy and member of the Health Research Institute at the University of Limerick. Investigating health and social care systems, through participatory and inclusive methodologies, to build sustainable, actionable policies, with a particular focus Wheelchair and Seating provision infrastructure is her passion. Rosie's work is underpinned by equality, human rights and sustainable development perspectives. She is an active member International Society of Wheelchair Professionals and WHO GATE community.

Sharon has specialised in the field of positioning and mobility for over 28 years. She offers clinical consulting to clients/service users: clinicians and manufacturers. She has given over 850 presentations on positioning and mobility to varied audiences worldwide. Sharon is a contributing author in the recently published “Seating and Wheeled Mobility: A Clinical Resource Guide”. Sharon is known to many as a dynamic, compassionate and highly energetic speaker.

Jackie is a senior lecturer in Occupational Therapy at Oxford-Brooks University. She was formally the Director of Clinical Education – Custom Seating with Permobil RoHo, Americas. She is Associate Lecturer/Professor School of Health Sciences, University of Ulster, (since Sept. 2017) following 19 years as Occupational Therapy lecturer. Jackie developed postgraduate MSc programs in Seating for complex disability, Pressure ulcer prevention and management and Wheelchair mobility. She has a particular interest working with children with complex needs and their families.