

PLENARIES

PLENARY 14: Driving Precision Health: Choosing Wisely Between the 6MWT & the SWT

Fatim Tahirah Mirza

Center for Physiotherapy Studies, Faculty of Health Sciences, Universiti Teknologi MARA, Puncak Alam Campus, 42300 Puncak Alam, Selangor, Malaysia

Exercise intolerance is a major consequence of cardiorespiratory disease and contributes to reduced functional capacity, participation and quality of life. Although cardiopulmonary exercise testing (CPET) remains the gold standard for assessing maximal exercise capacity, its cost, equipment requirements and technical expertise limit routine use in many clinical settings. Field-based walking tests therefore provide practical alternatives, but the Six-Minute Walk Test (6MWT), Incremental Shuttle Walk Test (ISWT) and Endurance Shuttle Walk Test (ESWT) assess different aspects of exercise performance and should not be used interchangeably.

This presentation reviews the development, protocols and clinical applications of these commonly used field walking tests, with emphasis on selecting the most appropriate test according to the intended purpose. The 6MWT is self-paced, simple, well tolerated and reflective of functional activities of daily living, with extensively established measurement properties. In contrast, the externally paced and incremental ISWT produces a graded physiological response and demonstrates a stronger relationship with peak oxygen uptake than the 6MWT, supporting its use for more individualised exercise intensity prescription. The ESWT, performed at a constant submaximal workload derived from ISWT performance, is particularly responsive to changes in endurance following interventions such as pulmonary rehabilitation.

Rather than choosing a test based on familiarity or geographical practice, clinicians should match the test to the clinical question. In stable patients, the ISWT may be preferred for prescribing exercise intensity and the ESWT for evaluating changes in endurance, while the 6MWT remains a practical measure of functional status, particularly in individuals with lower exercise capacity.