

Standardized Test, Unstandardized Practice: 6-Minute Walk Test Use in Pediatric Neuromuscular Disorders

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6MWT Background

- The 6-Minute Walk Test (6MWT) is widely used in pediatric neuromuscular disorders (NMDs)¹
- Easy to conduct, low cost, reliable
- ATS guidelines and NMD-specific adaptations should guide testing²
- Variability in test procedures may affect comparability & replication²



Primary Aim

To summarize methodological heterogeneity in published articles examining 6MWT performance in pediatric NMD populations



Methods

This poster presents a pediatric-focused sub-analysis from a larger parent narrative review of 6MWT use in NMDs

Search Strategy

- Conducted by biomedical librarian
- 3 databases searched:
 - PubMed, Web of Science, CINAHL Plus

Eligibility Criteria

- Published in 1982 or later
- Written in English
- Contains 6MWT or any synonym
- Sample includes children
- Sample includes at least one NMD group
- Publication type must be original research

Data Extraction

- Demographic and diagnostic information
- 6MWT guideline usage & protocol characteristics

Study Selection

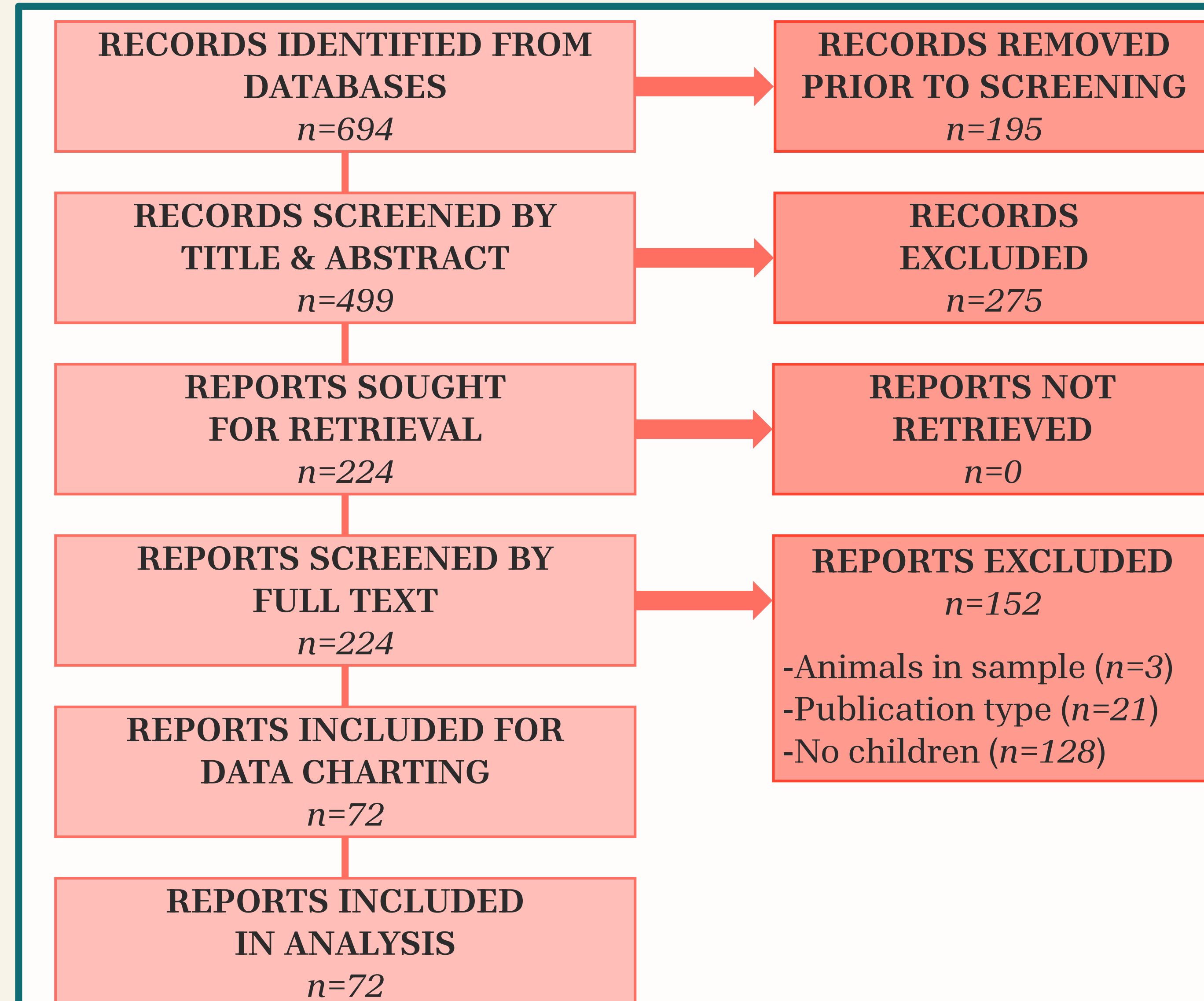
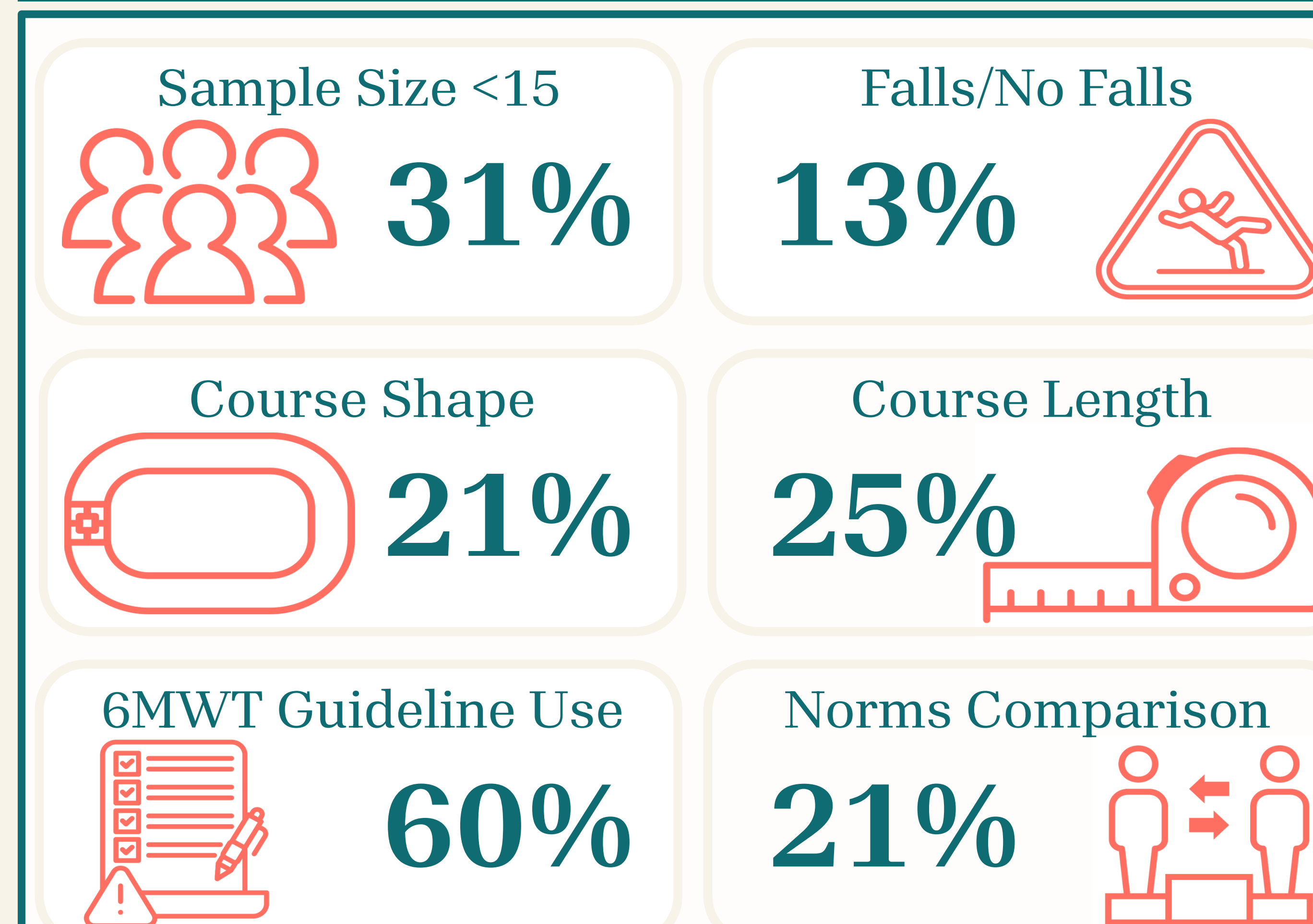


Figure 1. PRISMA diagram detailing study selection process

Results (n=72)



The percentage of papers that report each variable are shown

Results (continued)

NMD Groups	Articles
Duchenne Muscular Dystrophy (DMD)	59
Spinal Muscular Atrophy	4
Myotonic Disorder	3
Facioscapulohumeral Muscular Dystrophy	2
Charcot Marie Tooth Disease / Hereditary Motor Sensory Neuropathy	2
Becker Muscular Dystrophy (BMD)	2
Limb-Girdle Muscular Dystrophy	1

Table 1. Number of articles by NMD group

Note: one study contained both a DMD and BMD group

Primary Takeaway

Methodological procedures highly varied across articles, with inconsistent adherence to standardized 6MWT guidelines



Discussion

- This narrative review highlights the need for standardized methods in the administration of the 6MWT in children with NMDs
- Inconsistent 6MWT reporting limits interpretation and ability to compare across studies and cohorts
- Improved standardization is needed to support research conclusions and valid clinical interpretations
- Until such standards are adopted, interpretation of 6MWT data should be approached with caution given the wide variability in methodology.



References

