Table H-12. Strength of evidence for Key Question 2: multimodal exercise that includes strengthening for cerebral palsy

| **Intervention****Category,****Intervention** | **Comparator** | **Outcome** | **Number of Studies (Participants)****Author Year****(See Appendix B for Full Citation)** | **Study Limitations** | **Consistency** | **Precision** | **Reporting Bias** | **Strength of Evidence** | **Findings, Direction and Magnitude of Effect** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Multimodal****Exercise**Progressive resistance or strength exercise plus aerobic or balance  | *Usual care* | Walking *Immediately Post-treatment* | **6MWT**1 (N=37)Fosdahl, 2019b**GDI**1 (N=37)Fosdahl, 2019b | Moderate | Unknown | Imprecise | Undetected | Insufficent | **6MWT (meters)**1 trial: difference −45.7 (55.4) vs. −55.4 (55.5), adj. MD10.6 (95% CI −29.3 to 50.6), p=0.590 (pre-post change)**GDI** 1 trial: difference −0.4 (4.4) vs. −0.8 (7.14), adj. MD −1.0 (95% CI −5.3 to 3.3), p=0.65 |
| **Multimodal****Exercise**Progressive resistance or strength exercise plus aerobic or balance  | *Usual care* | Walking *Intermediate term (16 weeks)*  | **6MWT**1 (N=37)Fosdahl, 2019b**GDI** 1 (N=37) Fosdahl, 2019b1MWT2 (N=80)Kaya Kara, 2019Van Wely, 2014a | Moderate |  Inconsistent | Imprecise | Undetected | Insufficient | **6MWT (meters)**1 trial: difference −differences)vs. −56.6 (59.6), adj. MD 7.2 (−43.3 to 57.7), p=0.772 (16 week change)**GDI** 1 trial: difference −0.7 (6.0) vs. 1.01 (5.9), adj. MD −1.4 (95% CI −5.6 to 2.8), p=0.504 (16 week change)1MWT:2 pooled trials: MD -5.28, 95% CI -10.24 to -0.33, I2=45% |
| **Multimodal****Exercise**Progressive resistance or strength exercise plus aerobic or balance  |  *Usual care* | Functional Capacity *Immediately Post-treatment*  | **GMFM-66** 2 (N=105)Slaman, 2015a, 2015b, 2014, 2010 Van Wely, 2014a, 2014b, 2010**GMFM88-D/E**1 (N=30)Kaya Kara, 2019 | Moderate  | Inconsistent(GMFM-66)Unknown (GMFM-88 D/E) | Imprecise | Undetected | Low-strength evidence for no clear benefit | **GMFM-66 (0-100 scale)**2 trials, MD –1.5, 95% CI –6.4 to 4.7, I2=71%).No difference in one trial (difference 1.6, 95% CI –2.7 to 5.9) in one trial; the other trial favored exercise over usual care (difference –3.1, 95% CI –5.7 to –0.6)**GMFM-88-D**1 trial: difference –0.2, 95% CI –0.9 to 0.6 **GMFM-88-E**1 trial: difference 2.7, 95% CI 1.0 to 4.4  |
| **Multimodal****Exercise**Progressive resistance or strength exercise plus aerobic or balance |  *Usual care* | Functional Capacity *Intermediate term (16 weeks)* | **TUG**1 (N=37)Fosdahl, 2019b | Moderate | Unknown | Imprecise | Undetected | Insufficient | **TUG**difference –1.1, 95% CI –1.4 to –0.78 |
| **Multimodal****Exercise**Progressive resistance or strength exercise plus aerobic or balance  |  *Usual care* | Quality of Life *Immediately Post treatment*  | **CP-QOL:** 1 (N=50)Van Wely, 2014a, 2014b, 2010**SF-36:** 1 (N=57)Slaman, 2015a, 2015b, 2014, 2010 | Moderate |  Consistent |  Unknown | Undetected | Low-strength evidence for no clear benefit | No improvement in any domain of either QOL measure was seen in either study (please see full report). |

Abbreviations: 6MWT = 6-Minute Walk Test; CI = confidence interval; CP = cerebral palsy; CP-QOL = cerebral palsy quality of life questionnaire; GDI = Gait Deviation Index; GMFM-66 = Gross Motor Function Measure 66; GMFM-88-D/E = Gross Motor Function Measure 88 dimensions D (standing) and E (walking, running, jumping); MD = mean difference; NA = not applicable; SF-36 = Short-Form 36 questionnaire; QoL = quality of life; RCT = randomized controlled trial; TUG = Timed Up and Go Test