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, 2019b  1MWT  2 (N=80)  Kaya Kara, 2019  Van 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