Table H-15. Strength of evidence for Key Question 2: general exercise effect across interventions and populations

| **Intervention**  **Category,**  **Intervention** | **Comparator** | **Outcome** | **Number of RCTs (Participants)**  **Author Year**  **(See Appendix B for Full Citation)** | **Study Limitations** | **Consistency** | **Precision** | **Reporting Bias** | **Strength of Evidence** | **Findings, Direction and Magnitude of Effect** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **All-exercise interventions** (General exercise effect across interventions/  populations) | Usual Care | 6MWT | 25 (1196)  Baguet, 2018  Hebert, 2011  Kargarfard, 2018  Young, 2019  Kim, 2015  Kalron, 2017  Duff, 2018  Dalgas, 2010  Taylor, 2013  Hogan, 2014  Garrett, 2012ab  Sandroff, 2017  Sangelaji, 2014  Sangelaji, 2016  Ebrahimi, 2015  Jones, 2014a  Bahrami, 2019a  Callesen, 2019  Fosdahl, 2019b  Tollar, 2020  Yazgan, 2019  Moraes, 2020  Ahmadizadeh 2019 | Moderate | Consistent | Precise | Undetected | Moderate for benefit | 6MWT: Pooled analysis: MD -32.94, 95% CI -46.07 to -19.81, I2=78% |
| All exercise | Usual Care | Walking in MS | 25 (1529) Baguet, 2018  Hebert, 2011  Kargarfard, 2018  Young, 2019  Kalron, 2017  Duff, 2018  Dalgas, 2010  Hogan, 2014  Garrett, 2012a/b  Sandroff, 2017  Sangelaji, 2014  Sangelaji, 2016  Ebrahimi, 2015  Carling, 2017  Cakit, 2010  Tarakci, 2013  Fox, 2016  Forsberg, 2016  Nilsagard, 2012  Callesen, 2019  Ahmadi, 213  Arntzen, 2020  Tollar, 2020  Moraes, 2020  Yazgan, 2019  Faramarzi, 2020  Ozkul, 2020b | Moderate | Consistent | Precise | Not detected | High for benefit | Pooled analysis (19 studies): 6MWT: MD -42.70, 95% CI -57.05 to -28.35, I2=75%  Pooled analysis (9 studies): 10MWT: MD -1.44, 95% CI -2.74 to -0.13, I2=90%  Pooled analysis (9 studies): MS Walking Scale: MD -2.88, 95% CI -4.80 to -0.96, I2=33% |
| All exercise | Usual Care | 10MWT | 14 (659)  Fox, 2016  Dalgas, 2010  Carling, 2017  In, 2018  Sangelaji, 2016  Cakit, 2010  Ebrahimi, 2015  Tarakci, 2013  Jones, 2014a  Bahrami, 2019  Elnaggar, 2019  Scholtes, 2012  Ahmandi, 2013  Arntzen, 2020 | Moderate | Consistent | Imprecise | Not detected | Moderate for benefit | MD -1.24, 95% CI -2.04 to -0.44 |
| All exercise | Usual Care | Function:  GMFM-66 in CP  GMFM-66D in CP  GMFM-66E in CP  TUG | 7 (353)  Fowler, 2010  Bryant, 2012  Scholtes, 2010  Deutz, 2017  Herrero, 2012  Slaman, 2015  Van Wely, 2014  2 (78)  Wallard, 2018  Taylor, 2013  3 (151)  Wallard, 2018  Taylor, 2013  Deutz, 2017  2 (70)  Hsieh, 2018  Kaya Kara, 2019 | Moderate | Consistent | Imprecise | Not detected | Low-strength evidence for benefit | GMFM-66: MD -0.58, 95% CI -1.62 to 0.45, I2=79%  GMFM-66D: MD -0.89, 95% CI -7.33 to 5.55, I2=60%  GMFM-66E: MD -3.73, 95% CI -5.78 to -1.67, I2=0%  TUG: MD -1.05, 95% CI -1.35 to -0.76) |
| All exercise | Usual Care | Walking in CP | 7 (234)  Kim, 2015  Taylor, 2013  Bahmani, 2019  Fosdahl, 2019b  Ahmadizadeh, 2019  Elnagger, 2019  Scholtes, 2012 | Moderate | Consistant | Imprecise | No detected | Low for no clear benefit | Pooled analysis (4 trials) 6MWT: MD 6.85, 95% CI -13.39 to 27.08, I2=0%  Pooled analysis (3 trials) 10MWT: MD -0.46, 95% CI -1.55 to 0.63, I2=44% |
| All exercise | Usual Care | BBS | 19 (1006)  Gervasoni, 2014  Kargarfard, 2018  Afrasiabifar, 2018  Forsberg, 2016  Carling, 2017  Gandolfi, 2015  Hsieh, 2018  Vermohlen, 2018  Sangelaji, 2014  Sangelaji, 2016  Ebrahimi, 2015  Tarakci, 2013  Brichetto, 2015  Tollar, 2020  Ozkul, 2020  Yazgan, 2019  Hota, 2020  Ahmandi, 2013  Kalron, 2017 | Moderate | Consistent | Precise | Not detected | Moderate for benefit | MD -3.64, 95% CI -4.23 to -3.04, I2=68% |
| All exercise | Usual Care | TUG | 19 (N=882)  Negaresh, 2018  Russo, 2018  Young, 2019  Duff, 2018  Bulguroglu, 2017  Kalron, 2017  Carling, 2017  Forsberg, 2016  Claerbout, 2012  Nilsagard, 2012  Hsieh, 2018  In, 2018  Cakit, 2010  Ebrahimi, 2015  Jones, 2014a  Kaya Kara, 2019  Ozkul, 2020  Yazgan, 2019  Faramarzi, 2020 | Moderate | Consistent | Imprecise | Undetected | Low-strength evidence for benefit | TUG: MD -0.66, -1.28 to -0.04, I2=85% |
| All exercise | Usual Care | TUG in MS | 15 (N=743)  Negaresh, 2018  Russo, 2018  Young, 2019  Duff, 2018  Bulguroglu, 2017  Kalron, 2017  Carling, 2017  Forsberg, 2016  Claerbout, 2012  Nilsagard, 2012  Cakit, 2010  Ebrahimi, 2015  Ozkul, 2020  Yazgan, 2019 | Moderate | Consistent | Precise | Undetected | Moderate-strength evidence for no clear benefit | TUG: MD -0.30, 95% CI -1.18 to 0.59, I2=89% |
| All exercise | Usual Care | BBS in MS | 17 (906)  Gervasoni, 2014  Kargarfard, 2018  Afrasiabifar, 2018  Forsberg, 2016  Carling, 2017  Gandolfi, 2015Vermohlen, 2018  Sangelaji, 2014  Sangelaji, 2016  Ebrahimi, 2015  Tarakci, 2013  Ahmadi, 2013  Tollar, 2020  Kalron, 2017  Brichetto, 2015  Ozkul, 2020  Yazgan, 2019 | Moderate | Consistent | Precise | Not detected | Moderate for benefit | BBS: MD -3.56, 95% CI -4.58 to -2.54, I2=77% |
| All exercise | Usual Care | Function in CP | 11 (500)  Hsieh, 2018  Kaya Kara, 2019  Fowler, 2010  Bryant, 2012  Schlotes, 2010  Deutz, 2017  Herrero, 2012  Mutoh, 2019  Slaman, 2015  Van Wely, 2014 | Moderate | Consistent | Imprecise | Not detected | Low for benefit | BBS: MD -3.09, 95% CI -4.60 to -1.58  Pooled TUG: -1.05, 95% CI -1.35 to -0.76, I2=0%  Pooled GMFM-66: MD -0.58, 95% CI -1.62 to 0.45, I2=79% |
| All exercise | Usual Care | Function in SCI | 4 (129)  Norouzi, 2019  Hota, 2020  Jones, 2014  In, 2018 | Moderate | Consistent | Imprecise | Not detected | Low for benefit | Pooled BBS: MD -4.53, 95% CI -6.46 to -2.61, I2=0%  6MWT: MD -32.97, 95% CI -68.17 to 2.23  Pooled analysis (2 trials) 10MWT: MD -5.06, 95% CI -13.29 to 3.15, I2=55%  Pooled analysis (2 trials) TUG: -10.33, 95% CI -37.10 to 16.45, I2=61% |

Abbreviations: : 6MWT = 6-Minute Walk Test; 10MWT = 10-Meter Walk Test; BBS: Berg Balance Scale; CP = cerebral palsy; GMFM-66 = Gross Motor Function Measure 66; GMFM-66(D) = Gross Motor Function Measure 66 dimension D (standing); GMFM-66(E) = Gross Motor Function Measure 66 dimension E (walking, running, jumping); MD = mean difference; MS = multiple sclerosis; NA = not applicable; RCT = randomized controlled trial; SCI = spinal cord injury; TUG = Timed Up and Go Test