**Supplemental Digital Content 2**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** | **12** | **13** | **14** | **Total** | **Final assessment** |
| **Abeysekera 2020** | + | + | + | + | - | + | + | + | + | - | + | - | + | - | **10/14** | **Good** |
| **Acton 2011** | + | + | + | + | - | NA | NA | NA | NA | NA | + | NR | NA | NA | **5/14** | **Poor** |
| **Aly 2007** | + | + | + | + | - | + | + | + | + | + | + | NR | + | + | **12/14** | **Good** |
| **Cheatham 2015** | + | + | + | + | - | NA | NA | NA | NA | NA | + | NR | - | NA | **5/14** | **Poor** |
| **Cheng 2014** | + | + | + | + | - | + | + | + | + | + | + | + | NA | + | **12/14** | **Good** |
| **Freed 2006** | + | + | + | + | - | NA | NA | NA | NA | NA | + | NR | + | NA | **6/14** | **Fair** |
| **Heye 2018** | + | + | NR | + | - | - | + | + | + | - | + | NR | NA | + | **8/14** | **Fair** |
| **Hoffman 2005** | + | + | - | + | - | + | + | + | + | + | + | NR | NA | + | **10/14** | **Good** |
| **Hoskoppal 2010** | + | + | NR | + | - | NA | NA | NA | NA | NA | + | NR | - | NA | **4/14** | **Poor** |
| **Ibuki 2012** | + | + | CD | + | - | + | + | + | + | + | + | NR | + | + | **11/14** | **Good** |
| **Joynt 2009** | + | + | + | + | - | NA | NA | NA | NA | NA | + | NR | NA | NA | **5/14** | **Poor** |
| **Khalid** | + | + | NR | + | - | + | + | - | + | - | + | - | NR | + | **8/14** | **Fair** |
| **Knirsch 2012** | + | + | + | + | - | NA | NA | NA | NA | NA | + | NR | NA | NA | **5/14** | **Poor** |
| **Li 2014** | + | + | - | + | - | + | + | + | + | + | + | NR | NA | + | **10/14** | **Good** |
| **Lim 2019** | + | + | - | + | - | + | + | + | + | + | + | - | - | + | **10/14** | **Good** |
| **Medoff-Cooper 2016** | + | + | CD | + | - | + | + | + | + | + | + | NR | NA | + | **10/14** | **Good** |
| **Peyvandi 2018** | + | + | + | + | - | + | + | + | + | - | + | + | - | + | **10/14** | **Good** |
| **Ravishankar 2013** | + | + | + | + | - | + | + | + | + | - | + | NR | NA | + | **10/14** | **Good** |
| **Reich 2017** | + | + | + | + | - | NA | NA | NA | NA | NA | + | NR | NA | NA | **5/14** | **Poor** |
| **Reich 2019** | + | + | - | + | - | - | - | - | + | - | + | - | NA | + | **6/14** | **Fair** |
| **Sarajuuri 2009** | + | + | + | + | - | NA | NA | NA | NA | NA | + | NR | NA | NA | **5/14** | **Poor** |
| **Sarajuuri 2010** | + | + | + | + | - | + | + | + | + | + | + | NR | NA | + | **11/14** | **Good** |
| **Soul 2009** | + | + | - | + | - | + | + | + | + | - | + | NR | NA | + | **9/14** | **Fair** |
| **Toet 2005** | + | + | CD | + | - | + | + | + | + | + | + | NR | NA | - | **9/14** | **Fair** |
| **Visconti 2006** | + | + | + | + | - | + | + | + | + | - | + | NR | NA | + | **10/14** | **Good** |
| **Williams 2013** | + | - | + | + | - | + | + | + | + | - | + | NR | NA | + | **9/14** | **Fair** |
| **Zeltser 2008** | + | + | + | + | - | NA | NA | NA | NA | NA | + | NR | NA | NA | **5/14** | **Poor** |

**Supplementary table 1a Methodological quality assessment cohort studies**

Abbreviations: +, yes; -, no; CD, cannot determine; NA, not applicable; NR, not reported. Short description of quality assessment questions (see Appendix X for full description of quality assessment tool used): 1. research question clearly stated; 2. study population defined; 3. participation rate >50% of eligible persons; 4. population homogeneity + in- and exclusion criteria; 5. sample size justification; 6. exposure measured prior to outcome; 7. sufficient timeframe; 8. categories of exposure; 9. exposure measures clearly described; 10. exposure assessed more than once; 11. outcome measures clearly described; 12. assessors blinded; 13. loss to follow-up <20%; 14. confounding measured and adjusted

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** | **12** | **13** | **14** | **Total** | **Final assessment** |
| **Goldberg 2007** | + | + | - | + | + | + | - | + | + | NA | + | - | + | + | **10/14** | **Good** |

**Supplementary table 1b Methodological quality assessment randomized controlled trials**

Abbreviations: +, yes; -, no; CD, cannot determine; NA, not applicable; NR, not reported. Short description of quality assessment questions (see Appendix X for full description of quality assessment tool used): 1. study described as RCT; 2. adequate method of randomization; 3. treatment allocation concealed; 4. participants and providers blinded; 5. assessors blinded; 6. similar groups at baseline; 7. overall drop-out rate <20%; 8. differential drop-out rate <15%; 9. high adherence both groups; 10. other interventions similar or avoided; 11. outcome measures clearly described; 12. sample size sufficient; 13. outcomes and subgroups pre-specified; 14. intention-to-treat analysis

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** | **12** | **Total** | **Final assessment** |
| **Stieber 2012** | + | + | + | CD | CD | - | + | CD | + | + | - | - | **6/12** | **Fair** |

**Supplementary table 1c Methodological quality assessment feasibility study**

Abbreviations: +, yes; -, no; CD, cannot determine; NA, not applicable; NR, not reported. Short description of quality assessment questions (see Appendix X for full description of quality assessment tool used): 1. research question clearly stated; 2. eligibility study population described; 3. representative participants for population of interest; 4. all eligible participants enrolled; 5. sample size sufficient; 6. intervention clearly described; 7. outcome measures clearly described; 8. assessors blinded; 9. loss to follow-up <20% and accounted for in analysis; 10. did statistical methods examine changes in outcome; 11. outcome assessed multiple times; 12. individual-level data considered in statistical analysis to determine effects at group level;