**Supplementary file 1. Quality rating for included studies**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Study (1st Author, Year)*** | **Murphy (2012)** | **Hannum (2004)** | **Akers (2012)** | **Wien (2014)** | **Tate (2012)** | **Salas-Salvado (2014)** | **Waller (2004)** | **Crichton (2012)** | **Sabate (2005)** | **Thorsdottir (2007; 2009)** | **Baxheinrich (2012)** | **Piehowski (2011)** | **Zemel (2009)** | **Kristensen (2012)** | **Tonstad (2013)** | **Whybrow (2007)** |
| ***Reference Number*** | **25** | **21** | **28** | **18** | **26** | **29** | **27** | **24** | **23** | **30;34** | **20** | **32** | **31** | **22** | **33** | **19** |
| **VALIDITY QUESTIONS - PRIMARY STUDIES** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *1. Was the research question clearly stated?* | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y |
| *2. Was the selection of study subjects/patients free from bias?* | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y |
| *3. Were study groups comparable?* | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y |
| *4. Was method of handling withdrawals described?* | y | n | n | y | y | y | y | y | n | y | n | n | n | n | n | n |
| *5. Was blinding used to prevent introduction of bias?* | n | n | n | n | y | y | n | n | n | n | n | n | n | n | n | n |
| *6. Were intervention/therapeutic regimens/exposure factor or procedure and any comparison(s) described in detail? Were intervening factors described?* | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y |
| *7. Were outcomes clearly defined and the measurements valid and reliable?* | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y |
| *8. Was the statistical analysis appropriate for the study design and type of outcome indicators?* | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y |
| *9. Were conclusions supported by results with biases and limitations taken into consideration?* | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y |
| *10. Is bias due to study’s funding or sponsorship unlikely?* | y | y | y | y | y | y | y | y | n | y | y | y | y | y | y | y |
| **OVERALL QUALITY - PRIMARY STUDIES** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Negative/Neutral/Positive **(N/0/P)** | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P |
| If most (six or more) of the answers to the above validity questions are “No,” the report should be designated negative | | | | | | | | | | | | | | | | |
| If the answers to validity criteria questions 2, 3, 6, and 7 do not indicate that the study is exceptionally strong, the report should be designated neutral | | | | | | | | | | | | | | | | |
| If most of the answers to the above validity questions are “Yes” (including criteria 2, 3, 6, 7 and at least one additional “Yes”), the report should be designated positive | | | | | | | | | | | | | | | | |
| **Sum** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Y | 9 | 8 | 8 | 9 | 10 | 10 | 9 | 9 | 8 | 9 | 8 | 8 | 8 | 8 | 8 | 8 |
| N | 1 | 2 | 2 | 1 | 0 | 0 | 1 | 1 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 2 |