

## Online Supplementary File 2

Modified Downs and Black Quality Assessment Checklist<sup>1</sup>

|                                 |                                                                                                                                                                                                                                      |                                                                               |
|---------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|
| Article Title and Date:         |                                                                                                                                                                                                                                      |                                                                               |
| Authors:                        |                                                                                                                                                                                                                                      |                                                                               |
|                                 | Description                                                                                                                                                                                                                          | Answer (circle)                                                               |
| <b>REPORTING</b>                |                                                                                                                                                                                                                                      |                                                                               |
| 1                               | Is the hypothesis/aim/objective of the study clearly described?                                                                                                                                                                      | Yes = 1<br>No = 0                                                             |
| 2                               | Are the main outcomes to be measured clearly described in the Introduction or Methods section?                                                                                                                                       | Yes = 1<br>No = 0                                                             |
| 3                               | Are the characteristics of the patients included in the study clearly described?                                                                                                                                                     | Yes = 1<br>No = 0                                                             |
| 4                               | <del>Are the interventions of interest clearly described?</del>                                                                                                                                                                      | <del>Yes = 1</del><br><del>No = 0</del>                                       |
| 5                               | <del>Are the distributions of principal confounders in each group of subjects to be compared clearly described?</del>                                                                                                                | <del>Yes = 1</del><br><del>No = 0</del>                                       |
| 6                               | Are the main findings of the study clearly described?                                                                                                                                                                                | Yes = 1<br>No = 0                                                             |
| 7                               | Does the study provide estimates of the random variability in the data for the main outcomes?                                                                                                                                        | Yes = 1<br>No = 0                                                             |
| 8                               | <del>Have all important adverse events that may be a consequence of the intervention been reported?</del>                                                                                                                            | <del>Yes = 1</del><br><del>No = 0</del>                                       |
| 9                               | Have the characteristics of patients lost to follow-up been described?                                                                                                                                                               | Yes = 1<br>No = 0                                                             |
| 10                              | Have actual probability values been reported (e.g. 0.035 rather than <0.05) for the main outcomes except where the probability value is less than 0.001?                                                                             | Yes = 1<br>No = 0                                                             |
| <b>EXTERNAL VALIDITY</b>        |                                                                                                                                                                                                                                      |                                                                               |
| 11                              | Were the subjects asked to participate in the study representative of the entire population from which they were recruited?                                                                                                          | Yes = 1<br>No = 0<br>Unable to determine = 0                                  |
| 12                              | Were those subjects who were prepared to participate representative of the entire population from which they were recruited?                                                                                                         | Yes = 1<br>No = 0<br>Unable to determine = 0                                  |
| 13                              | <del>Were the staff, places, and facilities where the patients were treated, representative of the treatment the majority of patients receive?</del>                                                                                 | <del>Yes = 1</del><br><del>No = 0</del><br><del>Unable to determine = 0</del> |
| <b>INTERNAL VALIDITY – BIAS</b> |                                                                                                                                                                                                                                      |                                                                               |
| 14                              | <del>Was an attempt made to blind study subjects to the intervention they have received?</del>                                                                                                                                       | <del>Yes = 1</del><br><del>No = 0</del><br><del>Unable to determine = 0</del> |
| 15                              | <del>Was an attempt made to blind those measuring the main outcomes of the intervention?</del>                                                                                                                                       | <del>Yes = 1</del><br><del>No = 0</del><br><del>Unable to determine = 0</del> |
| 16                              | If any of the results of the study were based on “data dredging”, was this made clear?                                                                                                                                               | Yes = 1<br>No = 0<br>Unable to determine = 0                                  |
| 17                              | <del>In trials and cohort studies, do the analyses adjust for different lengths of follow up of patients, or in case control studies, is the time period between the intervention and outcome the same for cases and controls?</del> | <del>Yes = 1</del><br><del>No = 0</del><br><del>Unable to determine = 0</del> |

|                                                                                                        |                                                                                                                                                                                           |                                                                                                   |
|--------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| 18                                                                                                     | Were the statistical tests used to assess the main outcomes appropriate?                                                                                                                  | Yes = 1<br>No = 0<br>Unable to determine = 0                                                      |
| 19                                                                                                     | <del>Was compliance with the intervention/s reliable?</del>                                                                                                                               | <del>Yes = 1<br/>No = 0<br/>Unable to determine = 0</del>                                         |
| 20                                                                                                     | Were the main outcome measures used accurate (valid and reliable)?                                                                                                                        | Yes = 1<br>No = 0<br>Unable to determine = 0                                                      |
| <b>INTERNAL VALIDITY – CONFOUNDING (SELECTION BIAS)</b>                                                |                                                                                                                                                                                           |                                                                                                   |
| 21                                                                                                     | <del>Were the patients in different intervention groups (trials and cohort studies) or were the cases and controls (case control studies) recruited from the same population?</del>       | <del>Yes = 1<br/>No = 0<br/>Unable to determine = 0</del>                                         |
| 22                                                                                                     | <del>Were study subjects in different intervention groups (trials and cohort studies) or were the cases and controls (case control studies) recruited over the same period of time?</del> | <del>Yes = 1<br/>No = 0<br/>Unable to determine = 0</del>                                         |
| 23                                                                                                     | <del>Were study subjects randomised to intervention groups?</del>                                                                                                                         | <del>Yes = 1<br/>No = 0<br/>Unable to determine = 0</del>                                         |
| 24                                                                                                     | <del>Was the randomised intervention assignment concealed from both patients and health care staff until recruitment was complete and irrevocable?</del>                                  | <del>Yes = 1<br/>No = 0<br/>Unable to determine = 0</del>                                         |
| 25                                                                                                     | <del>Was there adequate adjustment for confounding in the analyses from which the main findings were drawn?</del>                                                                         | <del>Yes = 1<br/>No = 0<br/>Unable to determine = 0</del>                                         |
| 26                                                                                                     | Were losses of patients to follow-up taken into account?                                                                                                                                  | Yes = 1<br>No = 0<br>Unable to determine = 0                                                      |
| <b>POWER</b>                                                                                           |                                                                                                                                                                                           |                                                                                                   |
| 27                                                                                                     | <del>Did the study have sufficient power to detect a clinically important effect where the probability value for a difference being due to chance is less than 5%?</del>                  | <del>Size of smallest intervention group<br/>Yes = 1<br/>No = 0<br/>Unable to determine = 0</del> |
| Assessing the quality: excellent (11-13), good (9-10), fair (7-8), and poor ( $\leq 6$ ) <sup>23</sup> |                                                                                                                                                                                           |                                                                                                   |

This checklist has been adjusted to remove the questions pertaining to RCTs, as the review used only PO (participants and outcomes).

## References

1. Downs SH, Black N. The feasibility of creating a checklist for the assessment of the methodological quality both of randomised and non-randomised studies of health care interventions. *Journal of Epidemiology and Community Health* 1998;52(6):377-84. doi: 10.1136/jech.52.6.377
2. Chudyk AM, Jutai JW, Petrella RJ, et al. Systematic Review of Hip Fracture Rehabilitation Practices in the Elderly. *Archives of physical medicine and rehabilitation* 2009;90(2):246-62. doi: <https://doi.org/10.1016/j.apmr.2008.06.036>
3. O'Connor SR, Tully MA, Ryan B, et al. Failure of a numerical quality assessment scale to identify potential risk of bias in a systematic review: a comparison study. *BMC Res Notes* 2015;8:224-24. doi: 10.1186/s13104-015-1181-1