## Downs & Black Quality Assessm

Author	Is the hypothesis/aim/objective of the study clearly described?
Bowerman et al., (2014)	1
Bult et al. (2018)	1
Fourchet et al., (2011)	1
Hall et al., (2022)	1
Horobeanu et al (2007)	1
Johnson (DM) et al (2020)	1
Johnson (DM) et al (2022)	1
Johnson et al (2009)	0
Kemper et al (2015)	1
Le Gall et al., (2007)	1
Light et al (2020)	1
Materne et al (2021)	1
Monaco et al (2019)	1
Monasterio et al - EJSS (2023)	1
Monasterio et al - IJSM (2023)	1
Monasterio, I. Bidaurrazaga-Letona, et al (2022)	1
Monasterio, S.M. Gil, et al (2021)	1
Muller et al (2017)	1
Patel et al - JSS (2021)	1
Read et al (2018)	1
Rinaldo et al (2021)	1
Rommers et al (2021)	1
Rommers,et al (2020)	1
Rudavsky et al (2020)	1
Steidl-Mueller et al 2020	1
van der Sluis et al (2014)	1
van der Sluis et al (2015)	1
Wik et al (2020)	1

nent

yes=1

Are the main outcomes to be measured clearly described in the Introduction or Methods section?	Are the characteristics of the patients included in the study clearly described?	Are the interventions of interest clearly described?	
1	1	1	
1	0	1	
1	1	1	
1	1	1	
1	1	1	
1	0	1	
1	0	1	
1	0	1	
1	0	1	
1	0	1	
1	0	1	
1	1	1	
0	1	0	
1	1	1	
1	1	1	
1	1	1	
1	0	1	
1	1	1	
1	1	1	
1	1	1	
1	1	1	
1	1	1	
1	0	0	
1	1	0	
1	1	1	
1	0	1	
1	0	1	
1	1	1	

; no=0, UTD unable to determine

Are the distributions of principal confounders in each group of subjects to be compared clearly described? (Y=2, Partial =1, No =0)	Are the main findings of the study clearly described?	Does the study provide estimates of the random variability in the data for the main outcomes?	
0	1	0	
0	1	0	
0	1	0	
1	1	1	
1	1	0	
1	1	0	
1	1	1	
0	1	0	
0	1	0	
0	1	0	
0	0	1	
1	1	0	
0	1	0	
0	1	1	
1	1	0	
1	1	1	
1	1	0	
1	1	0	
0	1	0	
1	1	0	
0	1	0	
1	1	0	
1	1	0	
0	1	0	
0	1	0	
0	1	0	
0	1	0	
1	1	0	

Have all important adverse events that may be a consequence of the intervention been reported?	Have the characteristics of patients lost to follow-up been described?	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?
0	0	0
0	0	1
0	0	0
0	0	1
0	0	0
0	0	1
0	0	1
0	0	0
0	0	0
0	0	1
0	0	0
0	1	0
0	0	0
0	0	1
0	0	0
0	0	0
0	1	0
0	0	1
0	0	1
0	0	0
0	0	1
0	0	0
0	0	1
0	0	0
0	0	0
0	0	1
0	0	0
0	1	0

	1	
Were the subjects asked to participate in the study representative of the entire population from which they were recruited?	Were those subjects who were prepared to participate representative of the entire population from which they were recruited?	Were the staff, places, and facilitites where the patients were treated, representative of the treatment the majority of patients received?
1	1	UTD
1	0	1
1	0	0
1	1	1
1	0	1
0	1	1
0	1	1
0	1	1
1	1	1
0	1	1
0	1	1
1	1	1
0	1	1
0	0	1
0	0	1
1	1	1
1	1	1
0	1	UTD
0	1	1
1	UTDD	1
0	1	1
1	1	1
1	1	1
0	1	1
1	1	1
0	0	1
1	0	1
1	1	1

Was an attempt made to blind study subjects to the intervention they have recieved?	Was an attempt made to blind those measuring the main outcomes of the intervention?	If any results were due to "data dredging", was this made clear?
0	0	1
0	0	1
0	0	1
0	0	1
0	0	0
0	0	1
0	0	1
0	0	1
0	0	1
0	0	1
0	0	1
0	0	1
0	0	1
0	0	0
0	0	0
0	0	1
0	0	1
0	0	1
0	0	1
0	0	0
0	0	1
0	0	1
0	0	1
0	1	1
0	0	1
0	0	1
0	0	0
0	0	1

in thats and conort		
studies, do the analyses		
adjust for different levels	Were the statistical tests	
of follow-up of patients, or in case-control	used to assess the main	Was compliance with the
studies, is the time period	outcomes appropriate?	intervention/s reliable?
between intervention and	outcomes appropriate:	
outcome the same for		
case and controls?		
1	1	UTD
UTD	1	1
UTD	1	1
UTD	1	1
UTD	1	UTD
UTD	1	1
UTD	0	UTD
UTD	1	UTD
UTD	1	0
UTD	1	0
UTD	1	1
UTD	1	1
1	1	1
UTD	1	1
0	1	UTD
1	1	1
0	1	1
0	1	1
UTD	1	0
1	1	1
1	1	1
UTD	1	UTD
1	1	1

Were the main outcome measures used accurate (valid and reliable)?	Were the patients in different intervention groups (trials or cohort studies) or were the cases and controls (casecontrol studies) recruited from the same population?	Were the 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?
0	UTD	UTD
1	UTD	UTD
0	UTD	UTD
1	UTD	UTD
1	UTD	UTD
0	UTD	UTD
0	UTD	UTD
1	1	UTD
1	1	UTD
1	UTD	UTD
0	1	UTD
1	1	UTD
0	1	UTD
0	0	UTD
0	1	UTD

Were the study subjects randomised to intervention groups?	Was the randomised intervention assignment concealed from both patients and health care staff until recruitment was complete and irrevocable?	Was there adequate adjustment for confounding in the analyses from which the main findings were drawn?
UTD	UTD	1
UTD	UTD	0
UTD	UTD	0
UTD	UTD	1
UTD	UTD	0
UTD	UTD	1
UTD	UTD	0
UTD	UTD	0
UTD	0	0
UTD	UTD	0
UTD	UTD	1
UTD	UTD	0
UTD	UTD	0
UTD	UTD	1

Were losses of patients to follow-up taken into account?     *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%?     Total score 0/32       0     1     12       0     3     15       0     1     12       0     2     18       0     0     10       1     2     15       0     4     18       0     4     18       0     4     13       0     4     13       0     4     13       0     1     12       1     3     14       1     4     16       0     1     8       0     1     8       0     3     14       1     1     16       0     2     17       0     1     15       1     1     16       0     4     17       0     4	-		
0   3   15     0   1   12     0   2   18     0   0   10     1   2   15     0   4   18     0   4   13     0   0   10     0   1   12     1   1   12     1   1   16     0   1   8     0   1   8     0   3   14     0   3   13     0   2   17     0   1   15     1   1   16     0   13   13     0   4   17     0   4   17     0   4   19     0   2   16     1   16   16     0   11   16     0   11   16     0   13   16     0   11   16     0   11 <td>to follow-up taken into</td> <td>sufficient power to detect a clinically important effect where the probability value for a difference being due to chance is</td> <td></td>	to follow-up taken into	sufficient power to detect a clinically important effect where the probability value for a difference being due to chance is	
0   1   12     0   2   18     0   0   10     1   2   15     0   4   18     0   4   13     0   0   10     0   1   12     1   1   12     1   1   12     1   1   12     1   1   12     1   1   16     0   1   1     0   1   1     1   1   16     0   2   16     1   0   1     0   1   16     0   1   16     0   1   16     0   1   16     0   1   16     0   1   16     0   1   16     0   1   16     0   1   16     0   1   16     0   0	0	1	12
0   2   18     0   0   10     1   2   15     0   4   18     0   4   13     0   0   10     0   1   12     1   3   14     1   4   16     0   1   8     0   3   14     0   3   13     0   2   17     0   1   15     1   1   16     0   0   13     3   3   13     0   4   17     0   4   19     0   2   16     1   0   13     0   1   16     0   1   16     0   1   16     0   7	0	3	15
0   0   10     1   2   15     0   4   18     0   4   13     0   0   10     0   1   12     1   3   14     1   4   16     0   1   8     0   3   14     0   3   14     0   3   13     0   2   17     0   1   15     1   1   16     0   0   13     3   3   13     0   4   17     0   4   19     0   2   16     1   0   13     0   1   16     0   1   16     0   1   16     0   0   11     0   0   11     0   0   7	0	1	12
1   2   15     0   4   18     0   4   13     0   0   10     0   1   12     1   3   14     1   4   16     0   1   8     0   3   14     0   3   13     0   2   17     0   1   15     1   1   16     0   0   13     3   3   13     0   4   17     0   4   19     0   2   16     1   0   13     0   1   16     0   0   11     0   0   11     0   0   11     0   0   11     0   0   11     0   0   11     0   0   11     0   0   7	0	2	18
0   4   18     0   4   13     0   0   10     0   1   12     1   3   14     1   4   16     0   1   8     0   3   14     0   3   14     0   3   13     0   2   17     0   1   15     1   1   16     0   0   13     3   3   13     0   4   17     0   4   19     0   2   16     1   0   13     0   1   16     0   0   11     0   0   11     0   0   11     0   0   7	0	0	10
0   4   13     0   0   10     0   1   12     1   3   14     1   4   16     0   1   8     0   3   14     0   3   13     0   2   17     0   1   15     1   1   16     0   0   13     3   3   13     0   4   17     0   4   19     0   2   16     1   0   13     0   1   16     0   1   16     0   0   11     0   0   11     0   0   11     0   0   11     0   0   7	1	2	15
0   0   10     0   1   12     1   3   14     1   4   16     0   1   8     0   3   14     0   3   13     0   2   17     0   1   15     1   1   16     0   0   13     3   3   13     0   4   17     0   4   17     0   4   19     0   2   16     1   0   13     0   1   16     0   0   11     0   0   11     0   0   11     0   0   7	0	4	18
0   1   12     1   3   14     1   4   16     0   1   8     0   3   14     0   3   13     0   2   17     0   1   15     1   1   16     0   0   13     3   3   13     0   4   17     0   4   19     0   2   16     1   0   13     0   1   16     0   0   11     0   0   7	0	4	13
1   3   14     1   4   16     0   1   8     0   3   14     0   3   13     0   2   17     0   1   15     1   1   16     0   0   13     3   3   13     0   4   17     0   4   19     0   2   16     1   0   13     0   1   16     0   0   11     0   0   7	0	0	10
1 4 16   0 1 8   0 3 14   0 3 13   0 2 17   0 1 15   1 1 16   0 0 13   3 3 13   0 4 17   0 4 19   0 2 16   1 0 13   0 1 16   0 0 11   0 0 11   0 0 7	0	1	12
0 1 8   0 3 14   0 3 13   0 2 17   0 1 15   1 1 16   0 0 13   3 3 13   0 4 17   0 4 19   0 2 16   1 0 13   0 1 16   0 0 11   0 0 7	1	3	14
0 3 14   0 3 13   0 2 17   0 1 15   1 1 16   0 0 13   3 3 13   0 4 17   0 4 19   0 2 16   1 0 13   0 1 16   0 0 11   0 0 7	1	4	16
0 3 13   0 2 17   0 1 15   1 1 16   0 0 13   3 3 13   0 4 17   0 4 19   0 2 16   1 0 13   0 1 16   0 0 11   0 0 7	0	1	8
0 2 17   0 1 15   1 1 16   0 0 13   3 3 13   0 4 17   0 4 19   0 2 16   1 0 13   0 1 16   0 0 11   0 0 7	0	3	14
0 1 15   1 1 16   0 0 13   3 3 13   0 4 17   0 4 19   0 2 16   1 0 13   0 1 16   0 0 11   0 0 7	0	3	13
1 1 16   0 0 13   3 3 13   0 4 17   0 4 19   0 2 16   1 0 13   0 1 16   0 0 11   0 0 7	0	2	17
0 0   3 3   0 4   0 4   0 2   1 0   1 1   0 1   0 1   0 1   0 0   1 0   0 0   0 0   0 7	0	1	15
3 3 13   0 4 17   0 4 19   0 2 16   1 0 13   0 1 16   0 0 11   0 0 7	1	1	16
0 4 17   0 4 19   0 2 16   1 0 13   0 1 16   0 0 11   0 0 7	0	0	13
0 4 19   0 2 16   1 0 13   0 1 16   0 0 11   0 0 7	3	3	13
0 2 16   1 0 13   0 1 16   0 0 11   0 0 7	0	4	17
1 0 13   0 1 16   0 0 11   0 0 7	0	4	19
0 1 16   0 0 11   0 0 7	0	2	16
0 0 11 0 0 7	1	0	13
0 0 7	0	1	16
	0	0	11
1 2 19	0	0	7
	1	2	19