Supplementary Materials 3: Full quality assessment for prioritised studies.

Table 1. Full quality assessment for prioritised studies in effectiveness tranche

Study (First Author, Date)	Are the individuals selected to participate in the study likely to be representative of the target population? 1=Very Likely, 2=Somewhat likely, 3=Not likely, 4=CT	What percentage of selected is agreed to participate? (1=80 - 100% agreement, 2=60 – 79% agreement, 3=< 60% agreement, 4=NA, 5=CT)	Section rating (1 Strong, 2 Moderate, 3 Weak)	Study design (1=RCT, 2=CCT, 3=CA, 4=CC, 5=C, 6=ITS, 7=Other 8=CT)	Was the study described as randomized? (Y/N)	Was the method of randomization described? (Y/N/NA)	Was method of randomization appropriate? (Y/N/NA)	Section rating (1= Strong, 2= Moderate, 3= Weak)	Were there important differences between Groups prior to the intervention (1=Yes, 2=No, 3= CT)	Indicate the % of confounders that were controlled	Section rating (1= Strong, 2= Moderate, 3= Weak)	Was (were) the outcome assessor(s) aware of the intervention or exposure status of participants? (1=Yes, 2=N, 3= CT)	Were the study participants aware of the research question? (1=Yes, 2=No, 3= CT)	Section rating (1= Strong, 2= Moderate, 3= Weak)	Were data collection tools shown to be valid? (Answer this for the means of determining LOS)(1=Yes, 2=No, 3= CT)	Were means of determining LOS reliable? (1=Yes, 2=No, 3= CT)	Section rating (1= Strong, 2= Moderate, 3= Weak)	Were withdrawals and drop-outs reported in terms of numbers and/or reasons per group? (1=Yes, 2=No, 3= CT 4=NA)	differs by Gs, record the lowest) (1=80 -100%, 2=60 - 79%, 3= < 60%, 4=CT, 5=NA)	Section rating (1= Strong, 2= Moderate, 3= Weak)	What percentage of participants received the allocated intervention or exposure of interest? (1=80 -100%, 2=60 - 79%, 3= < 60%, 4=CT)	Was the consistency of the intervention measured? (1=Yes, 2=No, 3= CT)	Is it likely that subjects received an unintended intervention (contamination or co-intervention) (1=Yes, 2=No, 3= CT)	Indicate the unit of allocation (e.g. Community, Organisation/ institution, Individual)	Indicate the unit of analysis (e.g. Community, Organisation/ institution, Individual)	Are the statistical methods appropriate for the study design? (1=Yes, 2=No, 3= CT)	Is the analysis performed by intervention allocation status (i.e. intention to treat) rather than the actual intervention received?(1=Yes, 2=No, 3= CT)	Is it clear how LOS is defined/calculated? (Y/N)
Abdominal surgery																												
Kaptrisou 2020[1]	2	1	2	1	Y	Y	Y	1	2	NA	1	2	1	2	1	3	2	1	1	1	1	2	3	I	G	1	1	N
Takagi 2019[2]	2	1	2	1	Y	Y	Y	1	1	NA	1	1	1	3	2	2	3	1	1	1	1	2	3	I	G	1	2	Y
Cardiac surgery																												
Arthur 2000[3]	2	2	2	1	Y	Y	Y	1	1	100 %	1	3	3	2	1	1	1	1	1	1	1	1	2	I	G	1	1	Y
Bennett 2020[4]	4	1	2	1	Y	Y	Y	1	1	4	3	2	2	1	1	1	1	1	2	2	1	2	3	I	I	1	2	Y
King 2008[5]	2	5	3	1	Y	Y	Y	1	2	NA	1	1	1	3	1	2	2	1	1	1	1	2	3	I	G	1	1	Y

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Rief 2017;[6] Auer 2017[7]	2	3	3	1	Y	Y	Y	1	2	NA	1	2	1	2	1	1	1	1	1	1	4	2	3	I	G	1	1	Y
Sadlonova 2022[8]	2	2	2	1	Y	Y	Y	1	1	4	3	1	1	3	1	1	1	1	2	2	4	2	3	I	G	1	1	Y
van der Peijl 2004[9]	2	1	2	1	Y	Y	Y	1	1	0%	3	2	3	2	3	3	3	1	3	3	3	2	3	I	G	1	2	N
Colorectal surgery																												
Bousquet-Dion 2018[10]	2	1	2	1	Y	Y	Y	1	2	NA	1	1	2	2	1	1	1	1	2	2	1	1	3	I	G	1	1	Y
Carli 2010[11]	2	1	2	1	Y	N	N	3	3	NA	3	3	3	2	3	3	3	1	1	1	2	1	2	I	G	1	1	N
Carli 2020[12]	2	1	2	1	Y	Y	Y	1	1	0%	3	2	1	2	1	3	2	1	2	2	2	1	2	I	G	1	1	Y
Dronkers 2010[13]	2	5	2	1	Y	Y	Y	1	1	0%	3	2	3	2	3	3	3	1	1	1	1	1	2	I	G	1	1	N
Forsmo 2016[14]	2	1	2	1	Y	Y	Y	1	2	NA	1	1	1	3	3	3	3	1	1	1	1	1	2	I	C	1	2	Y

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Frontera 2014[15]	2	1	2	1	Y	Y	Y	1	2	NA	1	1	2	3	1	1	1	1	1	1	1	2	2	I	I	1	2	N
Gillis 2014[16]	2	1	2	1	Y	y	Y	1	3	0%	3	2	3	2	3	3	3	1	1	1	1	1	2	I	G	1	2	N
Khoo 2007[17]	2	3	3	1	Y	Y	Y	1	3	4	3	3	3	2	3	3	3	1	1	1	1	1	2	I	G	1	2	N
Lee 2011[18]	2	1	2	1	Y	Y	Y	1	2	NA	1	3	3	2	3	3	3	1	1	1	1	1	3	I	C	1	3	Y
Pappalardo 2016[19]	2	1	2	1	Y	N	NA	3	2	NA	1	2	3	2	3	3	3	2	4	3	1	1	2	I	G	1	3	Y
Vlug 2011[20]	4	5	3	1	Y	N	NA	1	2	NA	1	2	3	2	3	3	3	1	1	1	1	1	2	I	G	1	2	Y
Lower limb arthroplasty																												
Beaupre 2004,[21]	2	1	2	1	Y	Y	Y	1	2	NA	1	2	1	1	1	1	1	1	2	2	1	1	2	I	I	1	1	Y

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Borgwardt 2009[22]	2	5	2	1	Y	Y	Y	1	2	NA	1	3	3	2	3	3	3	1	1	1	1	2	2	I	G	1	2	N
Cavill 2016[23]	2	3	3	1	Y	Y	Y	1	2	NA	1	1	1	3	1	1	1	1	1	1	4	2	3	I	G	1	1	Y
den Hertog 2012[24]	2	5	2	1	Y	Y	Y	1	2	NA	1	3	1	2	3	3	3	1	1	1	1	1	3	I	I	1	1	Y
Fransen 2018[25]	2	1	2	1	Y	Y	Y	1	2	NA	1	1	1	3	1	1	2	1	2	2	1	1	1	I	I	1	1	Y
Garriga 2019 [26]	2	4	2	6	N	NA	NA	2	1	1	1	1	2	2	1	1	1	1	5	2	2	2	3	O	G	1	2	Y
Garriga 2019 [27]	2	4	2	6	N	NA	NA	2	3	4	3	1	2	2	1	2	2	1	5	2	4	2	3	O	G	1	2	Y
Higgins 2020[28]	2	1	2	5	N	NA	NA	3	3	4	3	1	1	3	1	1	1	2	2	2	4	4	4	I	G	1	1	N

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Hoogeboom 2010[29]	2	3	3	1	Y	Y	Y	1	2	NA	1	2	1	2	3	3	3	2	1	1	1	1	2	I	G	1	1	N
Hunt 2009;[30] Salmon 2013[31]	2	1	2	2	N	NA	NA	3	1	100 %	1	3	3	2	3	3	3	1	1	1	1	2	2	O	G	1	2	Y
Larsen 2008[32, 33]	2	2	2	1	Y	Y	Y	1	2	NA	1	2	3	2	3	3	3	1	1	1	1	2	2	I	G	1	1	Y
Maempel 2015[34]	2	4	2	7 UBA	N	NA	NA	3	2	NA	1	3	2	2	3	3	3	1	1	1	1	2	2	C	C	1	2	N
Maempel 2016[35]	2	4	2	7UBA	N	NA	NA	3	1	0%	3	3	2	2	3	3	3	1	1	1	1	2	2	C	C	1	2	Y
McDonald 2012,[36]	2	5	3	8	N	NA	NA	3	2	NA	1	1	1	3	1	1	1	2	4	3	1	2	3	I	G	1	1	Y

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McDonnall 2019[37]	2	1	2	7	Y	Y	Y	1	1	NA	1	1	1	3	2	2	3	1	1	1	1	2	2	W	C	1	2	N
McGregor 2004[38]	2	5	2	1	Y	N	NA	3	3	NA	3	3	3	2	3	3	3	2	1	1	1	2	3	I	G	1	3	N
Pour 2007[39]	2	2	2	1	Y	Y	Y	1	3	NA	3	3	1	2	3	3	3	1	1	1	1	2	2	I	C	1	2	N
Reilly 2005[40]	2	5	2	1	Y	Y	Y	1	2	NA	1	1	3	2	3	3	3	1	1	1	1	2	2	I	G	1	2	N
Siggeirsdottir 2005[41]	2	2	2	1	Y	Y	Y	1	3	NA	3	3	3	2	3	3	3	1	1	1	1	2	3	I	G	1	2	N
Vesterby 2017[42]	2	2	2	1	Y	Y	Y	1	3	NA	3	1	3	2	1	1	1	1	1	1	1	2	2	I	G	1	2	N
Williamson 2007[43]	2	2	2	1	Y	Y	Y	1	2	NA	1	2	3	2	1	1	1	1	3	3	1	2	2	I	G	1	1	N
Pelvic surgery																												

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Frees 2018[44]	2	1	2	1	Y	N	NA	1	2	NA	1	1	1	3	1	1	1	1	2	2	2	2	3	I	I	1	2	Y
Thoracic surgery																												
Ferreira 2021[45]	2	2	2	1	Y	Y	Y	1	2	NA	1	2	1	2	1	1	1	1	2	2	2	1	2	I	G	1	2	Y
Tumour removal surgery (various locations)																												
Hempenius 2013;[46] Hempenius 2016[47]	2	2	2	1	Y	Y	Y	1	2	NA	1	1	3	2	3	3	3	1	1	1	1	1	2	I	G	1	2	N
Schmidt 2015[48]	2	2	2	1	Y	Y	Y	1	2	NA	1	3	3	3	1	1	1	1	2	2	1	2	2	I	G	1	2	Y
Upper abdominal surgery																												
Dunne 2016[49]	2	3	3	1	Y	Y	Y	1	2	NA	1	3	3	2	3	3	3	1	1	1	1	2	2	I	G	1	2	N

Study (First Author, Date)	Are the individuals selected to participate in the study likely to be representative of the target population? 1=Very Likely, 2=Somewhat likely, 3=Not likely, 4=CT	What percentage of selected is agreed to participate: (1=80 - 100% agreement, 2=60 – 79% agreement, 3=< 60% agreement, 4=NA, 5=CT)	Section rating (1 Strong, 2 Moderate, 3 Weak)	Study design (1=RCT, 2=CCT, 3=CA, 4=CC, 5=C, 6=ITS, 7=Other 8=CT)	Was the study described as randomized? (Y/N)	Was the method of randomization described? (Y/N/NA)	Was method of randomization appropriate? (Y/N/NA)	Section rating (1= Strong, 2= Moderate, 3= Weak)	Were there important differences between Groups prior to the intervention (1=Yes, 2=No, 3= CT)	Indicate the % of confounders that were controlled	Section rating (1= Strong, 2= Moderate, 3= Weak)	Was (were) the outcome assessor(s) aware of the intervention or exposure status of participants? (1=Yes, 2=N, 3= CT)	Were the study participants aware of the research question? (1=Yes, 2=No, 3= CT)	Section rating (1= Strong, 2= Moderate, 3= Weak)	Were data collection tools shown to be valid? (Answer this for the means of determining LOS)(1=Yes, 2=No, 3= CT)	Were means of determining LOS reliable? (1=Yes, 2=No, 3= CT)	Section rating (1= Strong, 2= Moderate, 3= Weak)	Were withdrawals and drop-outs reported in terms of numbers and/or reasons per group? (1=Yes, 2=No, 3= CT 4=NA)	differs by Gs, record the lowest) (1=80 -100%, 2=60 - 79%, 3= < 60%, 4=CT, 5=NA)	Section rating (1= Strong, 2= Moderate, 3= Weak)	What percentage of participants received the allocated intervention or exposure of interest? (1=80 -100%, 2=60 - 79%, 3= < 60%, 4=CT)	Was the consistency of the intervention measured? (1=Yes, 2=No, 3= CT)	Is it likely that subjects received an unintended intervention (contamination or co-intervention) (1=Yes, 2=No, 3= CT)	Indicate the unit of allocation (e.g. Community, Organisation/ institution, Individual)	Indicate the unit of analysis (e.g. Community, Organisation/ institution, Individual)	Are the statistical methods appropriate for the study design? (1=Yes, 2=No, 3= CT)	Is the analysis performed by intervention allocation status (i.e. intention to treat) rather than the actual intervention received?(1=Yes, 2=No, 3= CT)	Is it clear how LOS is defined/calculated? (Y/N)
Jones 2013[50]	2	1	2	1	y	Y	Y	1	1	0	3	2	3	2	3	3	3	1	1	1	1	1	2	I	G	1	2	Y
Kapritsou 2017[51]	2	1	2	1	Y	Y	Y	1	2	NA	1	1	3	2	1	1	3	4	1	1	1	1	2	I	G	1	3	Y
C=Cohort; CA=C Analytic; CT=Can't Tell; CCT=Clinical Control Trial; G=Group; I=Individual; N=No; NA=Not Applicable; O=Organisation; RCT=Randomised Controlled Trial; W=ward; Y=Yes																												

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