

Appendix Table 3 Quality Assessment Score

	RBA*	Quality Assessment questions												
		2	8	9	11	12 ^a	1	3	4	5	6	7	10	12 ^{a,b,c}
Aglietti 1994 (54)	HR	0	0	1	1	0	1	1	0	0	1	0	0	0
Aglietti 1997 (55)	HR	0	0	1	0	0	1	1	0	0	1	0	1	0
Ahlden 2009 (18)	HR	0	0	1	0	0	1	1	0	1	1	1	1	0
Ahn 2012 (56)	LR	1	1	1	1	1	1	1	0	0	1	1	1	0
Cohen 2007 (57)	HR	1	1	1	0	0	1	1	0	0	1	1	1	0
Fink 2001 (30)	HR	1	0	1	0	0	1	1	1	1	1	1	1	0
Fithian 2005 (31)	HR	0	0	1	0	0	1	1	0	1	1	1	0	0
Frobell 2013 (19)	HR	1	0	1	1	0	1	1	1	1	1	1	1	0
Gerhard 2013 (58)	HR	1	0	1	1	0	1	0	1	0	1	1	1	0
Giron 2005 (32)	HR	0	0	1	1	0	1	1	0	1	1	1	1	0
Hanypsiak 2008 (33)	HR	1	1	1	1	0	1	1	0	1	1	0	1	0
Harilainen 2006 (20)	HR	0	1	1	0	0	1	1	0	1	1	1	0	0
Hart 2005 (59)	HR	1	1	1	0	0	1	1	1	1	1	1	1	0
Holm 2010 (21)	HR	0	0	1	0	0	1	0	1	1	1	1	1	0
Hui 2011 (34)	HR	1	0	1	0	1	1	1	0	1	1	1	1	0
Ichiba 2009 (60)	HR	0	0	1	0	0	1	1	0	0	1	0	0	0
Janssen 2013 (35)	LR	1	1	1	1	1	1	1	1	1	1	1	1	1
Jarvela 1999 (61)	HR	0	0	1	0	0	1	0	0	0	1	0	1	0
Jarvela 2001 (62)	HR	1	0	0	0	0	1	0	1	0	1	1	1	0
Jarvela 2001 (63)	HR	1	0	1	0	0	1	0	0	0	1	1	1	0

Jomha 1999 (36)	HR	1	1	1	0	0	1	1	0	1	1	1	1	0
Kannus 1989 (64)	HR	0	0	1	0	0	1	1	0	0	1	0	1	0
Keays 2010 (37)	HR	1	1	1	1	0	1	1	1	1	0	1	0	
Kessler 2008 (65)	HR	0	0	1	1	1	1	1	0	0	1	1	1	0
Lebel 2008 (66)	HR	1	0	1	0	0	1	1	0	1	1	1	1	0
Leiter 2013 (67)	HR	1	1	1	0	1	1	1	0	0	1	1	1	1
Leys 2012 (38)	HR	1	0	1	0	1	1	1	0	1	1	1	1	0
Li 2011 (68)	HR	0	0	1	0	1	1	1	0	0	1	1	1	1
Liden 2008 (69)	HR	1	0	1	1	0	1	1	1	0	1	1	1	0
Lohmander 2004 (70)	HR	1	0	1	0	1	1	1	0	0	1	1	1	1
Mascarenhas 2012 (52)	HR	0	0	1	0	0	1	1	0	0	1	1	0	0
Menke 1990 (71)	HR	0	0	1	0	0	0	0	0	0	1	0	1	0
Meuffels 2009 (53)	HR	0	1	1	0	0	1	1	0	0	1	1	1	0
Meunier 2007 (22)	HR	0	1	1	1	0	1	0	0	1	1	1	1	0
Mihelic 2011 (72)	HR	0	1	1	0	0	1	1	0	0	1	1	1	0
Moisala 2007 (39)	HR	1	0	1	0	0	1	1	0	0	1	1	0	0
Murray 2012 (73)	HR	0	1	1	0	0	1	1	0	0	1	1	1	0
Neuman 2008 (40)	HR	1	0	1	1	0	1	1	1	1	1	1	1	0
Neuman 2009 (41)	HR	1	1	1	0	0	1	0	0	1	1	1	1	0
Oiestad 2013 (42)	HR	0	0	1	1	1	1	1	0	1	1	1	1	1
Oiestad 2010 (43)	HR	1	0	1	1	1	1	1	1	1	1	1	1	1
Oiestad 2010 (44)	HR	1	0	1	1	0	1	1	1	1	1	1	1	0

O'Neill 2001 (23)	HR	0	0	1	0	1	0	0	0	0	0	1	1	1	0
Otto 1998 (74)	HR	1	0	1	1	0	1	0	0	0	0	1	1	1	0
Pinczewski 2007 (45)	HR	1	0	1	0	0	1	1	0	1	1	1	1	1	0
Pinczewski 2008 (46)	HR	1	1	0	1	1	1	1	0	1	1	1	1	1	0
Potter 2012 (47)	HR	0	1	1	1	1	1	1	0	1	1	0	1	1	0
Ruiz 2002 (48)	HR	0	0	1	0	0	1	0	0	1	1	0	1	1	0
Sajovic 2011 (24)	HR	0	0	1	1	0	1	1	1	1	1	1	1	1	0
Salmon 2006 (75)	HR	1	1	1	0	0	1	1	0	0	1	1	1	1	0
Segawa 2001 (76)	HR	0	0	1	0	0	1	1	1	0	1	1	1	1	0
Seitz 1994 (77)	HR	0	0	1	0	0	1	0	0	0	1	0	1	1	0
Seon 2006 (78)	HR	1	0	1	1	0	1	0	0	0	1	1	1	1	0
Shelbourne 2000 (49)	HR	0	0	1	0	0	1	1	0	0	1	1	1	1	0
Shelbourne 2012 (50)	HR	0	0	1	0	0	1	1	0	1	1	1	1	1	0
Song 2013 (25)	HR	0	0	1	1	0	1	1	0	1	1	1	1	1	0
Streich 2011 (79)	HR	1	0	1	1	0	1	1	1	0	1	1	1	1	0
Sun 2009 (26)	HR	0	0	1	1	1	1	1	1	1	1	1	1	1	0
Suomalainen 2012 (27)	HR	0	0	1	0	0	1	1	0	1	1	1	1	1	0
von Porat 2004 (80)	HR	1	0	0	0	0	1	1	1	0	1	1	1	1	0
Wang 2004 (81)	HR	1	0	1	0	0	1	0	0	0	1	1	0	0	0
Wipfler 2011 (28)	HR	0	0	1	1	0	1	1	0	1	1	1	1	1	0
Wu 2002 (51)	HR	0	0	1	0	0	1	0	0	1	1	1	1	1	0
Zaffagnini 2011 (29)	HR	1	0	1	1	0	1	1	0	1	1	1	1	1	0

Abbreviations: HR, high-risk of bias; LR, low-risk of bias; RBA, risk of bias assessment.

The following quality assessment questions were scored as adequate (1), inadequate (0) or not reported (0):

1. A clearly stated aim
2. Inclusion of consecutive patients
3. A description of inclusion and exclusion criteria
4. Inclusion of patients: did the authors report how many eligible patients agreed to participate (i.e. gave consent)?
5. Prospective collection of data. Data were collected according to a protocol established before the beginning of the study.
6. Outcome measure: did they report the OA outcome?
7. Was the used OA classification shown to be valid and reliable?
8. Unbiased assessment of the study outcome and determinants?
9. Were the determinant measures used accurate (valid and reliable)?
10. Follow-up period appropriate to the aim of the study
11. Loss to follow-up: did they report the losses to follow-up? Was the loss to follow-up less than 20%?
12. Adequate statistical analyses: a) correction for confounding; b) there must be a description of the relationship between the determinant and OA outcome or a description of the comparison (with information about the statistical significance); c) reporting variance in the outcome (for example SD, CI)

*Studies were classified as low-risk of bias when they scored adequate (1) on questions 2, 8, 9, 11 and 12a.
Low-risk of bias studies are printed in bold.