Table 1. Risk of bias assessment and GRADE of clinical tests for diagnosing femoroacetaburlar impingement / acetabular labral tear

Diagnosis					QUADAS 2							GRADE (outcome level)						
Femoroacetabular Impingement (FAI) / Acetabular Labral Tear (ALT) (Studies where tests are diagnosing internal hip pathology specified as either FAI and/or ALT)					Risk of Bias				Applicability Concern									
Index test	Study		Reference standard	Likelihood ratio	Patient Selection	Index Test	Reference Standard	Flow & Timing	Patient Selection	Index Test	Reference Standard	Study design	Risk of bias	Indirectness	Inconsistency	Imprecise evidence	Publication bias	Downgrade **
FADIR	Reiman et al.[1]	Aprato et al.[2]	MRA	LR+	✓	×	×	×	✓	✓	✓	✓	×	×	×	✓ (LR+) × (LR-)	✓	↓↓ (LR+) ↓↓↓ (LR-)
				LR-														
		Keeney et al.[3]		LR+	✓	×	✓	×	✓	✓	✓							
				LR-														
		Troelsen et al.[4]		LR+	×	✓	✓	?	✓	✓	✓							
				LR-														
		Beaule et al.[5]		LR+	×	×	×	✓	×	✓	×							
				LR-														
	Reiman et al.[1]	Keeney et al.[3]	Surgery	LR+	✓	×	✓	×	✓	✓	✓							
				LR-														
		Laude et al.[6]		LR+	×	×	×	✓	×	✓	✓							
				LR-														
		Peters et al.[7]		LR+	✓	×	×	?	✓	✓	✓							
				LR-														
		Leunig et al.[8]		LR+	×	×	×	✓	✓	✓	✓							
				LR-														
	Martin et al.[9]		Intra-articular injection	LR+	✓	×	×	?	✓	✓	×							
				LR-														
FABER	Maslowski et al.[10]		Intra-articular injection	LR+	×	✓	×	✓	✓	✓	×	✓	×	×	✓	✓	✓	↓↓
				LR-														
	Maslowski et al.[10]		X-ray, MRI, MRA	LR+	✓	×	?	?	✓	✓	✓							
				LR-														
	Martin et al.[9]		Intra-articular injection	LR+	✓	×	×	?	✓	✓	×							
				LR-														
	Tijssen et al.[11]		Surgery	LR+	✓	✓	?	?	✓	✓	✓							
				N/A														
Internal rotation over pressure	Maslowski et al.[10]		Intra-articular injection	LR+	×	✓	×	✓	✓	✓	×	✓	×	×	✓	✓ × (LR- / MRI)	?	↓↓ ↓↓↓ (for LR- ved MRI/MRA)
				LR-														
	Maslowski et al.[10]		X-ray, MRI, MRA	LR+	✓	×	?	?	✓	✓	✓							
				LR-														
Resisted straight leg raise test	Maslowski et al.[10]		Intra-articular injection	LR+	×	✓	×	✓	✓	✓	×	✓	×	×	✓	✓ × (LR-) (MRI & MRA)	?	↓↓ ↓↓↓ (for LR- ved MRI/MRA)
				LR-														
	Maslowski et al.[10]		X-ray, MRI, MRA	LR+	✓	×	?	?	✓	✓	✓							
				LR-														
	Tijssen et al.[11]		Surgery	LR+	✓	✓	?	?	✓	✓	✓							
				LR-														

Table 1 continued. Risk of bias assessment and GRADE of clinical tests for diagnosing femoroacetaburlar impingement / acetabular labral tear

Diagnosis				QUADAS 2							GRADE (outcome level)						
Femoroacetabular Impingement (FAI) and/or Acetabular Labral Tear (ALT) (Studies where tests are diagnosing internal hip pathology specified as either FAI and/or ALT)				Risk of Bias				Applicability Concern									
Index test	Study	Reference standard	Likelihood ratio	Patient Selection	Index Test	Reference Standard	Flow & Timing	Patient Selection	Index Test	Reference Standard	Study design	Risk of bias	Indirectness	Inconsistency	Imprecise evidence	Publication bias	Downgrade **
Scour test	Maslowski et al.[10]	Intra-articular injection	LR+	×	✓	×	✓	✓	✓	×	✓	×	×	✓	× (LR – ved MRI)	?	↓↓↓
			LR-														
	Maslowski et al.[10]	X-ray, MRI, MRA	LR+	✓	×	?	?	✓	✓	✓							
			LR-														
Trochanteric tenderness	Martin et al.[9]	Intra-articular injection	LR+	✓	×	×	?	✓	✓	×	✓	×	×	✓	×	?	↓↓↓
			LR-														
Anteriror impingement test	Tijssen et al.[11]	Surgery	LR+	✓	✓	?	?	✓	✓	✓	✓	?	×	✓	✓	?	↓
			N/A														
”Catching”	Martin et al.[9]	Intra-articular injection	LR+	✓	×	×	?	✓	✓	×	✓	×	×	✓	✓ (LR+) × (LR -)	?	↓↓ (LR+) ↓↓↓ (LR-)
			LR-														
”Pinching pain when sitting”	Martin et al.[9]	Intra-articular injection	LR+	✓	×	×	?	✓	✓	×	✓	×	×	✓	✓ (LR+) × (LR -)	?	↓↓ (LR+) ↓↓↓ (LR-)
			LR-														
”Lack of lateral thigh pain”	Martin et al.[9]	Intra-articular injection	LR+	✓	×	×	?	✓	✓	×	✓	×	×	✓	✓ (LR+) × (LR -)	?	↓↓ (LR+) ↓↓↓ (LR-)
			LR-														
“Groin pain”	Martin et al.[9]	Intra-articular injection	N/A	✓	×	×	?	✓	✓	×	✓	×	×	×	×	?	↓↓↓
			LR-														
	Tijssen et al.[11]	Surgery	LR+	✓	✓	?	?	✓	✓	✓							
			LR-														
“Perceived stiffness in the hip”	Tijssen et al.[11]	Surgery	LR+	✓	✓	?	?	✓	✓	✓	✓	?	×	✓	✓	?	↓
			N/A														
“Perceived mobility restrictions”	Tijssen et al.[11]	Surgery	N/A	✓	✓	?	?	✓	✓	✓	✓	?	×	✓	✓	?	↓
			LR-														
“Giving way”	Tijssen et al.[11]	Surgery	N/A	✓	✓	?	?	✓	✓	✓	✓	?	×	✓	✓	?	↓
			LR-														
“Locking”	Tijssen et al.[11]	Surgery	N/A	✓	✓	?	?	✓	✓	✓	✓	?	×	✓	✓	?	↓
			LR-														

Abbreviations: MRI (magnetic resonance imaging); US (ultrasound); LR+ (Positive likelihood ratio); LR- (negative likelihood ratio); N/A (not applicable)

*Item 1: Was a consecutive or random sample of patients enrolled? Item 2: Was a case-control design avoided? Item 3: Did the study avoid inappropriate exclusions? Item 4: Were the index test results interpreted without knowledge of the results of the reference standard? Item 5: If a threshold was used, was it pre-specified? Item 6: Is the reference standard likely to correctly classify the target condition? Item 7: Were the reference standard results interpreted without knowledge of the results of the index test? Item 8: Was there an appropriate interval between index test(s) and reference standard? Item 9: Did all patients receive a reference standard? Item 10: Did patients receive the same reference standard? Item 11: Were all patients included in the analysis?

Quadas 2 risk of bias assessment: × item not fulfilled; ✓ = item fulfilled; ? unclear or unknown if item is fulfilled

GRADE assessments: × = item cause for possible downgrade once; ×× = item cause for possible downgrade twice; ✓= item fulfilled, no downgrading; ? = item unclear or not available, no upgrading or downgrading.

**↓= downgrade quality by one level; ↓↓=downgrade quality by two levels; ↓↓↓=downgrade quality by three levels; ↔=no downgrade

Table 2. Risk of bias assessment and GRADE of clinical tests for diagnosing femoroacetaburlar impingement

Diagnosis				QUADAS 2							GRADE (outcome level)						
Femoroacetabular Impingement (FAI) (Studies where tests are diagnosing internal hip pathology specified as FAI and/or FAIS)				Risk of Bias				Applicability Concern									
Index test	Study	Reference standard	Likelihood ratio	Patient Selection	Index Test	Reference Standard	Flow & Timing	Patient Selection	Index Test	Reference Standard	Study design	Risk of bias	Indirectness	Inconsistency	Imprecise evidence	Publication bias	Downgrade **
FADIR	Domayer et al.[12]	MRI	LR+ LR-	×	×	×	✓	✓	✓	✓	✓	×	×	×	✓ (LR+) × (LR-)	✓	↓↓ (LR+) ↓↓↓ (LR-)
	Hananouchi et al.[13]	MRI	LR+ LR-	✓	×	×	×	✓	✓	✓							
	Sink et al.[14]	X-Ray	LR+ LR-	✓	✓	×	×	✓	✓	✓							
	Ranawat et al.[15]	X-Ray	LR+ LR-	?	?	✓	✓	✓	?	✓							
	Pålsson et al.[16]	Symptoms, X-Ray & Intra-articular injection	LR+ LR-	✓	✓	✓	✓	✓	✓	✓							
	Owusu-Akyaw et al.[17]	FAIS diagnosis*	LR+ LR-	?	?	?	×	?	?	✓							
	Peters et al.[7]	Surgery	LR+ LR-	✓	×	×	?	✓	✓	✓							
	Aprato et al.[2]	MRA	LR+ LR-	✓	×	×	×	✓	✓	✓							
	Barton et al.[18]	MRA	LR+ LR-	×	?	×	✓	✓	✓	✓							
Flex int rotation	Nogier et al.[19]	X-Ray	LR+ LR-	✓	✓	?	?	✓	✓	?	✓	✓	×	✓	✓	✓	↓
	Pålsson et al.[16]	Symptoms, X-Ray & Intra-articular injection	LR+ LR-	✓	✓	✓	✓	✓	✓	✓							
FABER	Trindade et al.[20]	X-Ray	LR+ LR-	✓	?	?	✓	✓	?	?	✓	✓	×	✓	✓	✓	↓ (LR+) ↓ (LR-)
	Pålsson et al.[16]	Symptoms, X-Ray & Intra-articular injection	LR+ LR-	✓	✓	✓	✓	✓	✓	✓							
	Owusu-Akyaw et al.[17]	FAIS diagnosis*	LR+ LR-	?	?	?	×	?	?	✓							
Squat	Ayeni et al.[21]	MRI / MRA	LR+ LR-	✓	✓	✓	✓	✓	✓	✓	✓	✓	×	✓	✓(LR+) × (LR-)	?	↓ (LR+) ↓↓ (LR-)
Trochanteric tenderness	Owusu-Akyaw et al.[17]	FAIS diagnosis*	LR+ LR-	?	?	?	×	?	?	✓	✓	×	×	✓	✓	?	↓↓
Anteriror impingement test	Pålsson et al.[16]	Symptoms, X-Ray & Intra-articular injection	LR+ LR-	✓	✓	✓	✓	✓	✓	✓	✓	✓	×	✓	✓	?	↓
DEXRIT or DIRIT***	Pålsson et al.[16]	Symptoms, X-Ray & Intra-articular injection	LR+ LR-	✓	✓	✓	✓	✓	✓	✓	✓	✓	×	✓	✓	?	↓

Table 2 continued. Risk of bias assessment and GRADE of clinical tests for diagnosing femoroacetaburlar impingement

Diagnosis				QUADAS 2							GRADE (outcome level)						
Femoroacetabular Impingement (FAI) (Studies where tests are diagnosing internal hip pathology specified as FAI and/or FAIS)				Risk of Bias				Applicability Concern									
Index test	Study	Reference standard	Likelihood ratio	Patient Selection	Index Test	Reference Standard	Flow & Timing	Patient Selection	Index Test	Reference Standard	Study design	Risk of bias	Indirectness	Inconsistency	Imprecise evidence	Publication bias	Downgrade **
Passive hip flexion	Pålsson et al.[16]	Symptoms, X-Ray & Intra-articular injection	LR+ LR-	✓	✓	✓	✓	✓	✓	✓	✓	✓	×	✓	✓	?	↓
Internal rotation with 0 degrees hip flexion	Pålsson et al.[16]	Symptoms, X-Ray & Intra-articular injection	LR+ LR-	✓	✓	✓	✓	✓	✓	✓	✓	✓	×	✓	× (LR+) ✓ (LR-)	?	↓↓ (LR+) ↓ (LR-)
External rotation with 90 degrees hip flexion	Pålsson et al.[16]	Symptoms, X-Ray & Intra-articular injection	LR+ LR-	✓	✓	✓	✓	✓	✓	✓	✓	✓	×	✓	✓	?	↓
Passive hip abduction	Pålsson et al.[16]	Symptoms, X-Ray & Intra-articular injection	LR+ LR-	✓	✓	✓	✓	✓	✓	✓	✓	✓	×	✓	✓	?	↓
Foot Progression Angle Walking	Ranawat et al.[15]	Symptoms, X-Ray & Intra-articular injection	LR+ LR-	✓	✓	✓	✓	✓	✓	✓	✓	✓	×	✓	✓	?	↓
Pain with passive hip extension	Owusu-Akyaw et al.[17]	FAIS diagnosis*	LR+ LR-	?	?	?	×	?	?	✓	✓	×	×	✓	× (LR+) ✓ (LR-)	?	↓↓↓ (LR+) ↓↓ (LR-)
Resisted hip abduction	Owusu-Akyaw et al.[17]	FAIS diagnosis*	LR+ LR-	?	?	?	×	?	?	✓	✓	×	×	✓	✓	?	↓↓
Bilateral resisted hip adduction	Owusu-Akyaw et al.[17]	FAIS diagnosis*	LR+ LR-	?	?	?	×	?	?	✓	✓	×	×	✓	✓	?	↓↓
Resisted External Derotation	Owusu-Akyaw et al.[17]	FAIS diagnosis*	LR+ LR-	?	?	?	×	?	?	✓	✓	×	×	✓	✓	?	↓↓
Thomas test	Owusu-Akyaw et al.[17]	FAIS diagnosis*	LR+ LR-	?	?	?	×	?	?	✓	✓	×	×	✓	✓	?	↓↓
Log Roll	Owusu-Akyaw et al.[17]	FAIS diagnosis*	LR+ LR-	?	?	?	×	?	?	✓	✓	×	×	✓	✓	?	↓↓
"Clicking or Catching"	Owusu-Akyaw et al.[17]	FAIS diagnosis*	LR+ LR-	?	?	?	×	?	?	✓	✓	×	×	✓	✓	?	↓↓
"Clicking"	Owusu-Akyaw et al.[17]	FAIS diagnosis*	LR+ LR-	?	?	?	×	?	?	✓	✓	×	×	✓	✓	?	↓↓
"Catching"	Owusu-Akyaw et al.[17]	FAIS diagnosis*	LR+ LR-	?	?	?	×	?	?	✓	✓	×	×	✓	✓	?	↓↓
"Pain when sitting"	Owusu-Akyaw et al.[17]	FAIS diagnosis*	LR+ LR-	?	?	?	×	?	?	✓	✓	×	×	✓	✓	?	↓↓
"Anterior/Groin/Hip Pain"	Owusu-Akyaw et al.[17]	FAIS diagnosis*	LR+ LR-	?	?	?	×	?	?	✓	✓	×	×	✓	✓	?	↓↓

Abbreviations: MRI (magnetic resonance imaging); US (ultrasound); LR+ (Positive likelihood ratio); LR- (negative likelihood ratio); N/A (not applicable)

*Item 1: Was a consecutive or random sample of patients enrolled? Item 2: Was a case-control design avoided? Item 3: Did the study avoid inappropriate exclusions? Item 4: Were the index test results interpreted without knowledge of the results of the reference standard? Item 5: If a threshold was used, was it pre-specified? Item 6: Is the reference standard likely to correctly classify the target condition? Item 7: Were the reference standard results interpreted without knowledge of the results of the index test? Item 8: Was there an appropriate interval between index test(s) and reference standard? Item 9: Did all patients receive a reference standard? Item 10: Did patients receive the same reference standard? Item 11: Were all patients included in the analysis?

Quadas 2 risk of bias assessment: × item not fulfilled; ✓ = item fulfilled; ? unclear or unknown if item is fulfilled

GRADE assessments: × = item cause for possible downgrade once; ×× = item cause for possible downgrade twice; ✓= item fulfilled, no downgrading; ? = item unclear or not available, no upgrading or downgrading.

**↓= downgrade quality by one level; ↓↓=downgrade quality by two levels; ↓↓↓=downgrade quality by three levels; ↔=no downgrade

Table 3. Risk of bias assessment and GRADE of clinical tests for diagnosing acetabular labral tear

Diagnosis				QUADAS 2							GRADE (outcome level)						
Acetabular Labral Tear (ALT) (Studies where tests are diagnosing internal hip pathology specified ALT)				Risk of Bias				Applicability Concern									
Index test	Study	Reference standard	Likelihood ratio	Patient Selection	Index Test	Reference Standard	Flow & Timing	Patient Selection	Index Test	Reference Standard	Study design	Risk of bias	Indirectness	Inconsistency	Imprecise evidence	Publication bias	Downgrade**
FADIR	Sink et al.[14]	MRI	LR+	✓	✓	×	×	✓	✓	✓	✓	××	×	×	×	✓	↓↓↓
			LR-														
	Beaule et al.[22]	MRA	LR+	×	×	×	✓	×	✓	×							
			LR-														
	Keeney et al.[3]	MRA	LR+	✓	×	✓	×	✓	✓	✓							
			LR-														
	Laude et al.[6]	Surgery	LR+	×	×	×	✓	×	✓	✓							
			LR-														
	Leunig et al.[8]	Surgery	LR+	×	×	×	✓	✓	✓	✓							
			LR-														
	Troelsen et al.[4]	MRA	LR+	×	✓	✓	?	✓	✓	✓							
			LR-														
	Wang et al.[23]	X-ray	LR+	✓	×	×	?	✓	✓	✓							
			LR-														
Flexion Internal Rotation test	Reiman et al.[1] / Chan et al.[24]	Surgery	LR+	✓	✓	×	×	✓	✓	✓	✓	×	×	✓ (LR+) ✓ (LR+)	× (LR+) × (LR-)	✓	↓↓↓
			LR-														
	Reiman et al.[1] / Petersilge et al.[25]	Surgery	LR+	×	✓	×	×	✓	✓	✓							
			LR-														
	Chan et al.[24]	MRA	LR+	✓	✓	×	×	✓	✓	✓							
			LR-														
FABER	Troelsen et al.[4]	MRA	LR+	×	✓	✓	?	✓	✓	✓	✓	×	×	?	×	?	↓↓
			LR-														
THIRD test	Myrick & Nissen.[26]	Surgery	LR+	×	?	×	?	?	×	✓	✓	×	×	?	× (LR+) × (LR-)	?	↓↓↓ (LR+) ↓↓↓ (LR-)
			LR-														
Thomas Test	McCarthy & Busconi.[27]	Surgery	LR+	×	×	×	✓	✓	×	×	✓	×	×	× (LR+) × (LR-)	×	✓	↓↓↓
			LR-														
	Tijssen et al.[11]	Surgery	LR+	✓	✓	?	?	✓	✓	✓							
			LR-														
Internal rotation-flexion-axial compression test	Narvani et al.[28]	MRA	LR+	×	×	×	?	✓	✓	✓	✓	×	×	?	×	?	↓↓↓
			LR-														

Table 3 continued. Risk of bias assessment and GRADE of clinical tests for diagnosing acetabular labral tear

Diagnosis				QUADAS 2							GRADE (outcome level)						
Femoroacetabular Impingement (FAI)				Risk of Bias				Applicability Concern									
Index test	Study	Reference standard	Likelihood ratio	Patient Selection	Index Test	Reference Standard	Flow & Timing	Patient Selection	Index Test	Reference Standard	Study design	Risk of bias	Indirectness	Inconsistency	Imprecise evidence	Publication bias	Downgrade **
"Clicking"	Narvani et al.[28]	MRA	LR+	×	×	×	?	✓	✓	✓	✓	××	×	✓	×	✓	↓↓↓
			LR-														
	McCarthy & Busconi.[27]	Surgery	LR+	×	×	×	✓	✓	×	×							
			LR-														
	Tijssen et al.[11]	Surgery	LR+	✓	✓	?	?	✓	✓	✓							
			LR-														
"Locking"	McCarthy & Busconi.[27]	Surgery	LR+	×	×	×	✓	✓	×	×	✓	××	×	✓	✓	?	↓↓↓
			LR-														
"Anterior groin pain"	McCarthy & Busconi.[27]	Surgery	LR+	×	×	×	✓	✓	×	×	✓	××	×	?	✓ (LR+) × (LR-)	?	↓↓↓
			LR-														
"Giving way"	McCarthy & Busconi.[27]	Surgery	LR+	×	×	×	✓	✓	×	×	✓	××	×	?	✓	?	↓↓↓
			LR-														

Abbreviations: MRI (magnetic resonance imaging); US (ultrasound); LR+ (Positive likelihood ratio); LR- (negative likelihood ratio); N/A (not applicable)

*Item 1: Was a consecutive or random sample of patients enrolled? Item 2: Was a case-control design avoided? Item 3: Did the study avoid inappropriate exclusions? Item 4: Were the index test results interpreted without knowledge of the results of the reference standard? Item 5: If a threshold was used, was it pre-specified? Item 6: Is the reference standard likely to correctly classify the target condition? Item 7: Were the reference standard results interpreted without knowledge of the results of the index test? Item 8: Was there an appropriate interval between index test(s) and reference standard? Item 9: Did all patients receive a reference standard? Item 10: Did patients receive the same reference standard? Item 11: Were all patients included in the analysis?

Quadas 2 risk of bias assessment: × item not fulfilled; ✓ = item fulfilled; ? unclear or unknown if item is fulfilled

GRADE assessments: × = item cause for possible downgrade once; ×× = item cause for possible downgrade twice; ✓= item fulfilled, no downgrading; ? = item unclear or not available, no upgrading or downgrading.

**↓= downgrade quality by one level; ↓↓=downgrade quality by two levels; ↓↓↓=downgrade quality by three levels; ↔=no downgrade

Table 2. Risk of bias assessment and GRADE for treatment of femoroacetabular impingement / labral tear

Treatment of femoroacetabular impingement / labral tear		Risk of Bias 2.0 Domain *						GRADE (outcome level)							
Interventions	Study	1	2	3	4	5	Overall	Outcome	Study design	Risk of bias	Inconsistency	Indirectness	Imprecise evidence	Publication bias	Downgrade**
Hip arthroscopy versus physiotherapy / non-operative care	Mansell et al.[29]	✓	?	✓	×	✓	×	**iHOT-33 @ 12 months**	RCT ✓	?	✓ (No effect in Mansell, however low I^2 and overlapping confidence intervals)	✓	× (Wide confidence interval, with lower part not exceeding clinical relevance)	?	↓
	Griffin et al.[30]	✓	?	?	?	✓	?	**iHOT-33 @ 12 months**	RCT ✓						
	Palmer et al.[31]	?	?	✓	?	✓	?	**iHOT-33 @ 8 months**	RCT ✓						
Hip arthroscopy versus physiotherapy / non-operative care	Mansell et al.[29]	✓	?	✓	×	✓	×	**iHOT-33 @ 24 months**	RCT ✓	×	?	✓ (but very selected population – military)	×	?	↓↓
8 weeks core and hip training versus only hip training	Aoyama et.al. [32]	×	?	×	?	?	×	**iHOT-12 @ 8 weeks**	RCT ✓	×	?	× (Only females included)	×	?	↓↓↓
12 weeks of "movement pattern" training versus usual rehabilitation	Harris-Hayes et al.[33]	×	?	?	×	?	×	**HOOS @ 13 weeks**	RCT ✓	×	?	× (No measures of morphology and use of HOOS)	✓	?	↓↓
6 weeks of manual therapy and supervised physiotherapy versus advice and home exercise	Wright et al.[34]	?	?	×	×	?	×	**HOS @ 7 weeks**	RCT ✓	×	?	× (use of HOS)	×	?	↓↓↓
Prescribed physiotherapy/training versus passive modalities	Smeatham et al.[35]	?	?	×	×	?	×	**NAHS @ 3 months**	RCT ✓	×	✓	✓ (But, use of NAHS in one study)	×	?	↓↓
	Kemp et al.[36]	✓	?	×	✓	?	×	**iHOT-33 @ 12 weeks**	RCT ✓						
Prescribed physiotherapy/training versus passive modalities	Harries-Hayes et al.[37]	✓	?	✓	×	?	×	**HOOS @ 6 weeks**	RCT ✓	×	?	× (No measures of morphology and use of HOOS)	×	?	↓↓↓
Post-operative rehabilitation versus advice only	Bennell et al.[38]	✓	×	?	×	✓	×	**iHOT-33 @ 14 weeks**	RCT ✓	×	✓	✓	×	?	↓↓
	Kemp et al.[39]	✓	?	✓	?	?	?	**iHOT-33 @ 12 weeks**	RCT ✓						
Post-operative rehabilitation versus advice only	Bennell et al.[38]	✓	×	?	×	✓	×	**iHOT-33 @ 24 weeks**	RCT ✓	×	?	✓	×	?	↓↓
Physiotherapy prior to surgery (pre-habilitation) versus massage	Grant et al.[40]	?	?	✓	×	?	×	**NAHS @ 12 weeks after surgery**	RCT ✓	×	?	× (use of NAHS)	× (Only 8 in each group)	?	↓↓↓

Abbreviations: RCT (randomized controlled trial)

*Domain 1: Risk of bias arising from the randomization process; Domain 2: Risk of bias due to deviations from the intended interventions (effect of assignment to intervention); Domain 3: Missing outcome data; Domain 4: Risk of bias in measurement of the outcome; Domain 5: Risk of bias in selection of the reported result.

Risk-of-bias judgement: × High; ✓ = Low; ? Some concern

GRADE assessments: × = item cause for possible downgrade once; ×× = item cause for possible downgrade twice; ✓= item fulfilled, no downgrading; ? = item unclear or not available, no upgrading or downgrading.

**↓= downgrade quality by one level; ↓↓=downgrade quality by two levels; ↓↓↓=downgrade quality by three levels; ↔=no downgrade

ROBIS: Tool to assess risk of bias in systematic reviews

Table 11. Suggested Tabular Presentation for ROBIS Results

Review	Phase 2				Phase 3
	1. STUDY ELIGIBILITY CRITERIA	2. IDENTIFICATION AND SELECTION OF STUDIES	3. DATA COLLECTION AND STUDY APPRAISAL	4. SYNTHESIS AND FINDINGS	RISK OF BIAS IN THE REVIEW
Burgess et al.[41]	☺	☹	☺	☺	?
Reiman et al.[1]	☺	☹	☺	☹	☺
Caliesch et al.[42]	☺	☺	☺	☹	?
Casartelli et al.[43]	☺	☹	☺	☹	☺
Kemp et al.[44]	☺	☹	☺	☹	☺

☺ = low risk; ☹ = high risk; ? = unclear risk

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