

Table 1. Medline search strategy

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Search performed on 30th January 2017: Medline (1946 to 30th January), Embase (1980 to 2017 Week 04), Scopus (performed on 30th January 2017), AMED (Allied and Complementary Medicine 1985 to Jan 2017), CAB Abstracts (1973 to 2017 Week 03).

Table 2. Characteristics of included studies

Author, Year	Study/ Participant characteristics		Study	Other outcomes reported
Country	Subvastus group	Medial parapatellar group	outcomes and	
Date of study			length of	
Study design			follow up	
Koh, 2016 Korea 2013-2014 RCT	51 patients undergoing same-day bilateral TKRs were randomised to receive SV in one knee and MP in the other. One patient (2 knees) was excluded from analysis due to intraoperative AF precluding the completion of bilateral TKR. Eligibility: Age <75 years, ASA 1 or 2, scheduled for same-day bilateral TKR for primary osteoarthritis. Exclusion criteria: Patients who had postoperative complications such as periprosthetic infection, periprosthetic fracture, or venous thromboembolism that could potentially affect the postoperative outcomes.		VAS for pain on day one 1 year follow up	WOMAC, patients' side preference, isometric quadriceps muscle strength, ROM, outcomes related to patellar tracking (patellar displacement and tilt angle, incidence of lateral retinacular release), KSS, duration of operation, hemovac drainage volume, and the incidence of wound complications
	50 SV patients	50 MP patients		

	94% female Mean age 65 BMI 26.8	94% female Mean age 65 BMI 26.8		
Zhou, 2014 China 2008-2012 RCT	78 patients undergoing 82 TKRs were randomised. Exclusions: Age <18, dysplasia, inflammatory and endocrine or metabolic diseases, flexion contracture >10°, varus deformity >15°, or valgus >20°, previous trauma, obesity.		HSS knee score 3 month follow up	Mean operation time, ROM, complications, postoperative drainage, time to SLR, time to walking.
	41 SV TKR patients 56% female Mean age 57.1	41 MP TKR patients 54% female Mean age 60.3		
Tomek, 2014 USA 2008-2010 RCT	129 patients randomised. Two patients subsequently excluded (one for opioid use and one for hearing problems). Patients with > 10 degrees valgus or varus deformity pre-operatively were excluded.		Early post operative pain, KSS	Opioid utilisation VAS for pain at rest and on activity (VAS) Independence from Ambulatory Devices Score UCLA activity score
	62 SV patients	65 MP patients		

	Mean age 63.7 (SD 9.7) Females 62% BMI 30.7	Mean age 64.8 (SD 9.3) Females 68% BMI 30.3	3 month follow up	Adverse events (wound/joint infection, medical complications)
Wegrzyn, 2013 USA 2007-2011 RCT	37 patients undergoing primary unilateral TKR were randomised. One SV group patient was lost to follow-up. Exclusions: pain or other symptoms of OA on other lower limb joints, preoperative knee flexion <90°, valgus or varus knee deformity >15°, other substantial neurologic or musculoskeletal disorders or diseases that may affect normal gait or weight bearing ability, history of previous hip and/or knee surgery, a BMI >40, pregnancy, or the presence of infectious diseases.		Gait analysis. Functional outcomes (KSS, KOOS, SF-12). 2 month follow up.	Strength of thigh musculature. Time to rehabilitation milestones. Walking aids Walking speed, cadence, stride length. Walking kinematics (power generation, knee varus moment, knee flexion angle).
	18 SV patients Mean age 67 (SD 8) Females 78% BMI 30 (SD 6)	18 MP patients Mean age 64 (SD 7) Females 78% BMI 31 (SD 4)		

<p>Jain, 2013 India 2010-2011 RCT</p>	<p>Only elderly patients (>70 years of age) with BMI of less than 30, knee deformity less than 20° in any plane and undergoing bilateral simultaneous TKR for osteoarthritis were included. No losses to follow up.</p>	<p>100 SV TKRs in 50 participants Mean age 76.4 Females 76%</p>	<p>100 MP TKRs in 50 participants Mean age 75.8 Females 80%</p>	<p>VAS for pain on day 0, 1, 3, and at discharge.</p>	<p>Operative time Perioperative blood loss (mls) Time to SLR (days) Time to standing with walker Time to using commode Time to climbing stairs Flexion at discharge (degrees) Length of stay</p>
<p>Bourke, 2012 Australia 2006-2007 RCT</p>	<p>Participants were > 18 years old, diagnosed with knee osteoarthritis. Exclusions: comorbidities preventing participation in rehabilitation, knee stiffness with less than 70° of flexion or flexion contracture of greater than 20°, or having undergone previous high tibial osteotomy or major arthrotomy on the operative knee. Those requiring lateral release were excluded (4 from SV group and 1 from MP group).</p>	<p>KSS 18 month follow up.</p>	<p>VAS pain Knee extension Knee flexion Quadriceps lag Girth mm Oxford Knee Score (12-60) 3 meter course "Up and Go" test in seconds Days to SLR</p>		

	<p>36 SV patients</p> <p>Mean age 68.1 years (SD 8.2)</p> <p>Females 53%</p> <p>1 lost to f/u after 6 weeks</p>	<p>40 MP patients</p> <p>Mean age 67.7 years (SD 6.5)</p> <p>Females 65%</p> <p>1 lost to f/u after 6 months</p> <p>1 lost to f/u after 12 months</p>		<p>Surgeon perceived difficulty</p> <p>Operation duration (min)</p> <p>Tourniquet duration (min)</p> <p>Length of stay (days)</p> <p>Complications: (Aseptic loosening requiring revision, Knee Stiffness requiring MUA, DVT, superficial infection)</p>
<p>van Hemert, 2011</p> <p>No study dates</p> <p>Netherlands</p> <p>RCT</p>	<p>Both surgeons performed five subvastus procedures prior to this study to minimize learning-curve bias.</p> <p>Patients with a previous contralateral knee implantation, a poor medical condition, cognitive or language problems to complete the questionnaires, age over 80 years, and those that were unable to perform a gait test were not included. No losses to f/u.</p>	<p>20 SV patients</p> <p>Mean age 70.3 (SD 11.8)</p> <p>Females 70%</p>	<p>20 MP patients</p> <p>Mean age 70.3 (SD 7.1)</p> <p>Females 65%</p>	<p>Dynaport knee function score.</p> <p>12 week follow up.</p> <p>KSS</p> <p>WOMAC</p> <p>Perioperative blood loss</p> <p>Pain disability index</p> <p>VAS for pain day 1 and 3</p> <p>Surgical time</p> <p>Implant malposition</p> <p>Deep Infection</p> <p>Extension lag on day 1 and 3</p>

	BMI 29.2	BMI 30.3		
Dutka, 2011 2004-2008 Poland Quasi-RCT	169 patients with 180 TKRs. Randomised according to odd/even case note number. Exclusion criteria were prior knee surgery, injury of a knee, damage of the extensor mechanism, and previous osteotomies. Cruciate retaining in 145 knees and posterior stabilised in 35 knees. No losses to follow-up.		KSS 18 -24 month follow up.	VAS for pain Postoperative extension deficiency Postoperative flexion contracture Venous thrombosis Wound problems Deep infection Component malposition
	97 SV TKRs in 89 patients Females 46% Mean age 70.3 (SD6.1)	83 MP TKRs in 80 patients Females 45% Mean age 71 (SD 5.1)		
Pan 2010 2007-2008 China RCT	Inclusion criteria included < 10° varus or < 15° valgus deformity, < 10° flexion deformity, ROM ≥ 90° and body mass index (BMI) < 30 kg/m2. Exclusion criteria were a diagnosis of rheumatoid arthritis, a previously operated joint, patella baja, compromise of the soft tissue envelope or knees that required complex reconstruction		KSS 18 month follow up.	Length of closed skin incision at 90° flexion Total blood loss Lateral release Range of movement VAS for pain

	with bone graft and/or prosthetic augmentation. No losses to follow up reported.			<p>Radiological assessment (alignment, position, presence of radiolucency)</p> <p>Day of first active SLR</p> <p>Complications (wound necrosis, infection, aseptic loosening)</p>
	<p>35 SV patients; OA 31, post trauma 4</p> <p>Mean age 62.5 (range 54-70)</p> <p>Females 69%</p> <p>BMI 24.8</p>	<p>33 MP patients; OA 30, post trauma 3</p> <p>Mean age 63.2 (range 50-75)</p> <p>Females 73%</p> <p>BMI 24.6</p>		
<p>Varela-Egocheaga 2010</p> <p>No study dates</p> <p>Spain</p> <p>RCT</p>	<p>100 patients enrolled. 50 underwent MIS subvastus, 50 were medial parapatellar approach. Inclusion criteria were knee OA, and exclusions were patients with a knee flexion contracture greater than 108, varus greater than 208, valgus greater than 158, body mass index greater than 40 kg/m², or those who previously had knee surgery were excluded. Follow-up was 3 years.</p>		<p>KSS at 1 month, 3 months, 1 year, and 3 years.</p>	<p>Perioperative blood loss (haemoglobin values at 6 and 48 hours after surgery)</p> <p>Postoperative blood drainage</p> <p>Patients transfused</p> <p>Packed blood cells transfused per patient</p> <p>Number of patients who needed any pain medications</p> <p>Analgesia/opiate in the first 24hrs</p>
	<p>50 patients</p> <p>Mean age 68.02 (SD 8.14)</p>	<p>50 patients</p> <p>Mean age 70.64 (SD 7.88)</p>		

	Females 72%	Females 74%		Completion of 20 meter walk test and climbing two stairs ROM on the third day after surgery and at 1 & 3 months, and 1 year Surgical time (skin-to-skin) Long-leg mechanical axis of the knee.
Jung, 2009 South Korea No study dates Quasi-RCT	26 patients and 40 cases (bilateral 28 cases, unilateral 12 cases) with OA undergoing TKR. Similar age gender and mean pre-operative flexion contracture and range of movement. Study population was 'divided randomly into two groups'. No description of how the random sequence was generated or allocation concealment was achieved. Bilateral TKRs all had one of each approach.		Days to active straight-leg raise (SLR) KSS Mean follow-up period 58.4 months (range 36-78 months).	Range of flexion of the operated knee at day 10, 6 weeks, 6, 12 months and 3 years. Radiographic loosening at 1 year Patellar tilt and subluxation at 24 months Subjective preference of patients with bilateral TKRs.
	21 SV patients Baseline characteristics not provided	19 MP patients Baseline characteristics not provided 7 unilateral and 12 bilateral		

	9 unilateral and 12 bilateral			
Bridgman 2009 2001-2003 UK RCT	<p>Allocated through a remote computer-based telephone service with minimisation on surgeon and gender.</p> <p>Inclusions: primary unilateral TKR for any indication, who had not had or were not planned to have a major arthrotomy in the other knee within 12 months, who had not had previous open surgery in or around the knee in the previous 12 months, (e.g. high tibial osteotomy, femoral osteotomy, fracture fixation, patellar realignment, patellectomy and open meniscectomy), who had a valgus angle of >20°, and who had a surgeon who had no clear preference for either surgical approach.</p> <p>The patella was replaced in 7/115 of the MP group (6.1%), and 10/116 (8.6%) of the SV group.</p>	<p>KSS (improvement from baseline) at one year follow up.</p>	<p>Length of stay Incidence of lateral release Surgeon perceived difficulty KSS WOMAC Euro Quol SF-36 Complications: Death, stiffness requiring MUA, DVT, PE, superficial infection, joint infection, patella dislocation, GP consultation for wound problems</p>	

	116 SV patients. Mean age 70.1 (SD 8.0) Females 48%	115 MP patients. Mean age 70.9 (SD 8.1) Females 49%		
Sastre, 2009 2006-2007 Spain RCT	<p>Inclusion criteria: informed consent, osteoarthritis with more than two affected knee compartments, lateral axis deviance of less than 15, body mass index of less than 30, first prosthetic surgery, absence of previous osteotomies, and a follow up of scheduled preoperative and postoperative tests at discharge, and at 1, 3 and 12 months.</p> <p>Two patients were excluded from the SV group because of deep infections.</p>		VAS for pain 12 month follow up.	<p>Quadriceps extensor force</p> <p>Quadriceps circumference</p> <p>Psoas muscular balance (Daniel's scale)</p> <p>Functional results (Barthel scale)</p>
	52 SV patients Baseline characteristics not provided.	48 MP patients Baseline characteristics not provided.		

<p>Hart 2006 2003-2004 Germany Quasi-RCT</p>	<p>Alternate allocation, minimally invasive subvastus or medial parapatellar – both navigated.</p>	<table border="1"> <tr> <td data-bbox="837 331 1055 603"> <p>40 SV patients Mean age 75.0 Females 65% BMI 28.8</p> </td> <td data-bbox="1055 331 1227 603"> <p>40 MP patients Mean age 73.8 Females 70% BMI 27.6</p> </td> </tr> </table>	<p>40 SV patients Mean age 75.0 Females 65% BMI 28.8</p>	<p>40 MP patients Mean age 73.8 Females 70% BMI 27.6</p>	<p>KSS 3 month follow up</p>	<p>Total Knee score (/200) at 6 and 12 weeks. Radiographic alignment on AP and lateral. Blood drainage Operative time Complications: fracture, delayed healing, haematoma, infection, DVT or PE.</p>
<p>40 SV patients Mean age 75.0 Females 65% BMI 28.8</p>	<p>40 MP patients Mean age 73.8 Females 70% BMI 27.6</p>					
<p>Boerger 2005 2003-2004 Italy Quasi-RCT</p>	<p>Prospective consecutive series of 120 patients were alternated between the subvastus approach and the medial parapatellar approach. Patients with OA having unilateral TKR were included and exclusions were patella baja, inflammatory arthritis, osteoporosis, very muscular males, scarring over the incision area and adhesions of the extensor mechanism. Based on these criteria, no patients were excluded. Patients were well matched for age, gender, BMI, pre-op ROM, and coronal plane deformity.</p>	<p>90 day knee flexion 3 month follow up</p>	<p>Tourniquet time Blood loss VAS for pain Days to achieving 90° flexion Time to SLR Radiographic component orientation Flexion at 30, 60 and 90 days Intraoperative complications Incidence of DVT</p>			

	60 SV patients Mean age 69 Females 77% BMI 28	60 MP patients Mean age 68 Females 75% BMI 29		
Weinhardt 2004 2002-2003 Germany Quasi-RCT	The diagnosis was osteoarthritis in all patients, others were not included in the study.		ROM	Pre-and post op range of motion Ability to actively extend from 30° flexion
	26 SV patients Mean age 69.6 (SD 8.5) Females 27%	26 MP patients Mean age 74.4 (SD 8.5) Females 46%	Follow up until discharge (approximately 1 week)	Days to SLR Days to walking full weight-bearing VAS for pain Radiographic alignment on AP and lateral views
Hafez 2002 1998-1999 UK Quasi-RCT	87 consecutive knee replacements. 'Randomly' allocated into two groups. 52 females 35 males. Mean age 65.8 (range 52-81). OA in 68 knees, RA in 12 and post traumatic arthritis in 7. 'Excessively obese or heavily muscled thighs and patients with knee flexion deformity of more than 30 degrees were not included.'		KSS 12 month follow up	Lateral release Tourniquet time Blood drainage in 48 hours Days to SLR

	40 SV patients No baseline demographics by group.	47 MP patients No baseline demographics by group.		Quadriceps strength testing (peak torque during concentric isokinetic extension of each knee). Radiographic alignment, patella subluxation, tilt and tracking. Range of movement
Roysam 2001 No study period UK RCT	89 consecutive patients undergoing primary TKR for osteoarthritis were randomised. No patient in either group received a patellar button or a lateral release.		Days to return of active SLR 3 month follow up	Mean pre-op fixed flexion deformity Mean pre-op Range of flexion Total blood loss Duration of hospital stay Days to SLR Opiate consumption in first week Knee flexion at 1 week Knee flexion at 4 weeks and 3 months Evidence of loosening or infection
	46 SV patients Mean age 70.2 Females 46%	43 MP patients Mean age 69.8 Females 49%		
Fauré 1993 1990-1991	Prospective randomised study of 20 patients undergoing one stage bilateral knee replacement (total 40 TKRs).			Lateral release Haematoma

USA RCT	Approach was randomised to side of procedure. Six patients underwent bilateral unicompartmental knee replacement, and 14 patients underwent bilateral total knee replacement. Components were all hybrid, except for cases of osteoporosis where the femoral component was also cemented. The patella was resurfaced.		Patient preference for approach 3 month follow up	Patellar subluxation Infection DVT Tourniquet time Wound drainage Assessment of flexion and extension Quadriceps strength
	20 SV patients Mean age 70 (range 55-81) Females 45%	20 MP patients Mean age 70 (range 55-81) Females 45%		
Maric 1991 1988-1989 USA Quasi-RCT	40 consecutive patients were assigned by alternate day schedule to subvastus or medial parapatellar approaches.		Days to SLR, Knee score	Days to SLR Post operative analgesia medication Length of hospital stay Incidence of patella maltracking ROM, Knee score, incidence of complications at final follow-up.
	No baseline characteristics recorded	No baseline characteristics recorded		

MUA manipulation under anaesthesia, SLR straight leg raise, DVT deep vein thrombosis, WOMAC Western Ontario and McMaster Universities Arthritis Index, TKR total knee replacement, RCT randomised controlled trial, AF atrial fibrillation, SV subvastus, MP, medial parapatellar, ROM range of movement, PE pulmonary embolism, BMI body mass index, OA osteoarthritis, RA rheumatoid arthritis, AP antero-posterior.

Table 3. Assessment of methodological quality

	Author and Year									
	Koh 2016	Zhou 2014	Tomek 2014	Wegrzyn 2013	Jain 2013	Bourke 2012	Van Hemert 2011	Dutka 2011	Pan 2010	Varela 2010
Surgical approach and technique explicitly standardised.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Previous experience with subvastus technique >10 procedures performed?	U	U	U	U	✓	✓	x	U	✓	✓
Standardised incisions in both groups?	✓	U	✓	x MIS in SV	✓	✓	✓	✓	x MIS in SV	x MIS in SV
All BMIs included (no exclusions)	✓	x	✓	x	x	✓	✓	✓	x	x

Computer navigation used?	x	x	x	x	✓	x	x	x	x	x
Single surgeon performing / supervising all cases?	✓	U	x	✓	✓	x	x	✓	✓	✓
Same implant for both groups?	✓	x	x	✓	✓	x	✓	✓	✓	✓
Cemented implant	✓	U	✓	✓	✓	✓	x	✓	✓	✓
Patella treated the same in both groups? R-resurfaced. N not. U uncertain.	✓ N	✓ R	U	✓ R	✓ R	U	✓ N	✓ N	x	✓ R
Standardised anaesthetic?	✓	U	✓	x	✓	U	U	x	U	U
Standardised perioperative analgesia?	✓	✓	✓	✓	✓	✓	U	x	✓	✓

Standardised thromboprophylaxis?	✓	U	✓	U	U	✓	U	✓	✓	✓
Standardised rehabilitation protocol?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Intention to treat analysis	x	x	✓	✓	✓	x	✓	x	✓	U
Loss to follow up <10%	✓	✓	✓	✓	✓	✓	✓	✓	✓	U
Lateral release?	x	x	U	U	U	x	x	U	✓ More in MP approach	U
PS or CR?	PS	U	PS	PS	CR	U	CR	CR 145 PS 35	PS	U
Bilateral?	✓	Mixed	x	x	✓	x	x	Mixed	x	x
		Author and Year								

	Jung 2009	Bridgman 2009	Sastre 2009	Hart 2006	Boerger 2005	Weinhardt 2004	Hafez 2002	Roysam 2001	Fauré 1993	Maric 1991
Surgical approach and technique explicitly standardised.	✓	✓	✓	✓	✓	✓	✓	✓	✓	x
Previous experience with subvastus technique >10 procedures performed?	U	U	U	U	U	U	U	U	U	U
Standardised incisions in both groups?	✓	✓	✓	x MIS in SV	U	✓	✓	✓	✓	U
All BMIs included (no exclusions)	U	✓	x	U	✓	U	x	U	U	U
Computer navigation used?	x	x	x	✓	x	x	x	x	x	U

Single surgeon performing / supervising all cases?	✓	x	U	x	✓	✓	U	✓	✓	U
Same implant for both groups?	✓	✓	✓	✓	x	✓	✓	✓	x	U
Cemented implant	U	✓	✓	✓	✓	✓	U	x	x	U
Patella treated the same in both groups? R-resurfaced. N not. U uncertain.	x	x	✓	✓ N	✓ R	✓ R	✓	✓ N	✓ R	U
Standardised anaesthetic?	U	x	U	U	✓	U	U	x	U	U
Standardised perioperative analgesia?	U	x	U	U	✓	U	✓	U	U	U
Standardised thromboprophylaxis?	U	U	U	U	✓	U	U	U	U	U

Standardised rehabilitation protocol?	U	x	✓	✓	✓	✓	x	✓	✓	U
Intention to treat analysis	U	✓	x	✓	✓	✓	U	✓	✓	U
Loss to follow up <10%	U	✓	✓	✓	U	✓	U	✓	✓	U
Lateral retinacular release?	U	✓ More in MP approach	U	U	✓ More in SV approach	U	✓ More in MP approach	x	✓ More in MP approach	U
PS or CR?	PS	U	CR	CR	PS	U	U	U	U	U
Bilateral?	Mixed	x	x	x	x	x	x	x	✓	U

Legend: ✓, standardised methodology; x, differences in methodology exists between the groups; U, unclear / not recorded.

Table 4. Risk of bias

Author, Year	Random sequence generation	Allocation concealment	Blinding of participants	Blinding of outcome assessment	Incomplete outcome data (attrition bias)	Selective reporting
Koh, 2016	-	-	-	-	-	-
Zhou, 2014	?	?	?	?	-	-
Tomek, 2014	-	?	?	-	-	-
Wegrzyn, 2013	-	?	-	-	-	-
Jain, 2013	-	?	?	?	-	-
Bourke, 2012	-	?	-	-	-	-
Van Hemert, 2011	-	?	-	-	-	-
Dutka, 2011	+	+	-	-	-	-
Pan, 2010	-	?	-	?	-	-
Varela, 2010	-	?	+	+	?	-
Jung, 2009	?	?	?	?	?	-
Bridgman 2009	-	-	-	-	-	?
Sastre, 2009	-	?	?	-	?	-
Hart, 2006	+	+	+	-	-	-
Boerger, 2005	+	+	+	-	-	-
Weinhardt, 2004	?	?	?	?	-	-
Hafez, 2002	?	?	?	?	-	-
Roysam, 2001	-	?	-	-	-	-
Fauré, 1993	?	?	-	-	-	-

Maric, 1991	+	+	?	?	?	?
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Grading system: + High risk of bias; ? unclear risk of bias; - Low risk of bias.

Table 5. Summary of study characteristics

Author	Year of publication	Type	No of participants	No of knees	Follow up (months)
Koh	2016	RCT	50	100	12
Zhou	2014	RCT	78	82	3
Tomek	2014	RCT	127	127	3
Wegrzyn	2013	RCT	36	36	2
Jain	2013	RCT	100	200	¼
Bourke	2012	RCT	76	76	18
Van Hemert	2011	RCT	40	40	3
Dutka	2011	qRCT	169	180	24
Pan	2010	RCT	68	68	18
Varela-Egocheaga	2010	RCT	100	100	36
Jung	2009	qRCT	26	40	58
Bridgman	2009	RCT	231	231	12
Sastre	2009	RCT	104	104	12
Hart	2006	qRCT	80	80	3
Boeger	2005	qRCT	120	120	3
Weinhardt	2004	qRCT	52	52	½
Hafez	2002	qRCT	87	87	12
Roysam	2001	RCT	89	89	3
Fauré	1993	qRCT	20	40	3
Maric	1991	qRCT	41	41	6

Table 6. Summary of meta-analysis results

Outcome	No of studies	No of knees	Effect size	95% confidence interval	P value
Knee Society Score at 6 weeks	11	1109	5.73 [MD]	-0.06, 11.51	0.05
Knee Society Score at 1 year	6	740	1.76 [MD]	-2.85, 6.36	0.45
Days to straight leg raise	9	811	-1.68 [MD]	-2.33, -1.04	<0.0000 1
VAS (/10) for pain day 1	6	512	-0.79 [MD]	-1.35, -0.22	0.006
Range of movement at 1 week	4	397	6.97 [MD]	3.21, 10.73	0.0003
Range of movement at 1 year	6	628	4.45 [MD]	-0.07, 8.97	0.58
Perioperative blood loss (mls)	12	1046	-58.47 [MD]	-106.44, -10.51	0.02
Total operative time (mins)	8	650	9.73 [MD]	3.88, 15.57	0.001
Tourniquet time (mins)	6	463	10.73 [MD]	-0.70, 22.16	0.07
Lateral release	6	634	0.36 [OR]	0.19, 0.68	0.001
Knee stiffness requiring MUA	6	616	0.67 [OR]	0.25, 1.81	0.43
Superficial wound infection	11	1159	1.24 [OR]	0.57, 2.70	0.21
Deep infection	9	958	0.86 [OR]	0.21, 3.60	0.93
Deep vein thrombosis	9	1011	0.93 [OR]	0.48, 1.78	0.82

Legend: MD; inverse variance mean difference. OR; Odds ratio with Mantel-Haenszel

method. Odds ratio effect sizes greater than 1 suggest that the outcome is more likely with the subvastus approach. Negative mean differences suggest that an outcome is reduced with the subvastus approach.