Contents of Supplementary Materials

Supplementary Method 1. Search strategy

1.Pubmed

#1 adhesive capsulitis[tiab] OR adhesive capsulitides[tiab] OR adhesive capsulitis of the shoulder[tiab] OR bursitis[tiab] OR bursitides[tiab] OR frozen shoulder[tiab] OR frozen shoulders[tiab] OR shoulder adhesive capsulitides[tiab] OR shoulder adhesive capsulitis[tiab] OR periarthritis[tiab] OR periarthritis[mh] OR bursitis[mh]

#2 randomized controlled trial[pt] OR randomized[tiab] OR randomised[tiab] OR placebo[tiab] OR control[tiab]

#3 #1 AND #2

2.Embase

#1 'adhesive capsulitis':ab,ti OR 'adhesive capsulitides':ab,ti OR 'adhesive capsulitis of the shoulder':ab,ti OR 'frozen shoulder':ab,ti OR 'frozen shoulders':ab,ti OR 'shoulder adhesive capsulitides':ab,ti OR 'shoulder adhesive capsulitis':ab,ti OR periarthritis:ab,ti OR 'frozen shoulder'/exp

#2 'randomized controlled trial'/exp OR placebo*:ab,ti OR random*:ab,ti OR control*:ab,ti

#3 #1 AND #2

3. CENTRAL (Cochrane Library)

#1 (adhesive capsulitis OR adhesive capsulitides OR adhesive capsulitis of the shoulder OR bursitis OR bursitides OR frozen shoulder OR frozen shoulders OR shoulder adhesive capsulitides OR shoulder adhesive capsulitis OR periarthritis):ti,ab,kw in Trials (Word variations have been searched)

#2 MeSH descriptor: [Bursitis] explode all trees

#3 MeSH descriptor: [Periarthritis] explode all trees

#4 #1 OR #2 OR #3

#5 MeSH descriptor: [Randomized Controlled Trial] explode all trees

#6 (randomized OR randomised OR placebo OR control):ti,ab,kw in Trials (Word variations have been searched)

#7 #5 OR #6

#8 #4 AND #7

4. Web of Science

#1 TI=(“adhesive capsulitis” OR “adhesive capsulitides” OR “adhesive capsulitis of the shoulder” OR bursitis OR bursitides OR “frozen shoulder” OR “frozen shoulders” OR “shoulder adhesive capsulitides” OR “shoulder adhesive capsulitis” OR periarthritis)

#2 TS= (randomized OR randomised OR placebo OR control)

#3 #1 AND #2

Supplementary Method 2. Algorithm for network meta-analysis models

(1) Random effects model for continuous data

```
model {
    for(i in 1:ns) {
        w[i,1] <- 0
        delta[i, t[i,1]] <- 0
        ss[i] <- sum(n[i,1:na[i]])
        nom[i] <- sum(nom1[i,1:na[i]])
        pooled.sd[i] <- sqrt(nom[i]/(ss[i] - na[i]))
        J[i] <- 1 - (3/((4 * (ss[i] - na[i])) -1))
#normal likelihood#
        for (k in 1:na[i]) {
            y[i,k] ~ dnorm(phi[i,t[i,k]],prec[i,k])
            se[i,k] <- sd[i,k]/sqrt(n[i,k])
            var[i,k] <- se[i,k] * se[i,k]
            prec[i,k] <- 1/var[i,k]
            nom1[i,k] <- (n[i,k] - 1) * sd[i,k] *sd[i,k]
        }
#Parameterization of the model#
        phi[i,t[i,1]] <- u[i] * (pooled.sd[i]/J[i])
        for(k in 2:na[i]) {
            phi[i,t[i,k]] <- (u[i] + delta[i,t[i,k]]) * (pooled.sd[i]/J[i])
            delta[i,t[i,k]] ~ dnorm(md[i,t[i,k]], taud[i,t[i,k]])
            md[i,t[i,k]] <- d[t[i,k]] - d[t[i,1]] + sw[i,k]
            taud[i,t[i,k]] <- tau * 2 * (k-1)/k
            w[i,k] <- (delta[i,t[i,k]] - d[t[i,k]] + d[t[i,1]])
            sw[i,k] <- sum(w[i,1:k-1])/(k-1)
        }
}
#Priors#
    SD ~ dnorm(0,1)I(0,1)
    tau <- 1/pow(SD,2)
    for(k in 1:(ref - 1)) {
        d[k] ~ dnorm(0,.0001)}
    for(k in (ref + 1):nt) {
        d[k] ~ dnorm(0,.0001)}
    for(i in 1:ns) {
        u[i] ~ dnorm(0,.0001)
    }
#Calculate the pooled SMD and prediction interval#
    d[ref] <- 0
    for(c in 1:(ref - 1)) {
        SMD.ref[c] <- d[c] - d[ref]
        predSMD.ref[c] ~ dnorm(SMD.ref[c],tau)}
    for(c in (ref + 1):nt){
        SMD.ref[c] <- d[c] - d[ref]
        predSMD.ref[c] ~ dnorm(SMD.ref[c],tau)}
    for(c in 1:(nt-1)){
        for(k in (c + 1):nt) {
            SMD[c,k] <- d[c] - d[k]
```

```
            predSMD[c,k] ~ dnorm(SMD[c,k],tau)}
    }
#Ranking of effectiveness#
    for (k in 1:nt) {
        order[k] <- nt+1-rank(d[],k)
        most.effective[k] <- equals(order[k],1)
        for(j in 1:nt){
            effectiveness[k,j] <- equals(order[k],j)}
    }
    for(k in 1:nt) {
        for(j in 1:nt){
            cumeffectiveness[k,j] <- sum(effectiveness[k,1:j])}
    }
#Calculate the SUCRAS#
    for (k in 1:nt) {
        SUCRA[k] <- sum(cumeffectiveness[k,1:(nt - 1)])/(nt - 1)
    }
#Fit of the Model#
    for(i in 1:ns){
        for(k in 1:na[i]) {
            Darm[i,k] <- (y[i,k] - phi[i,t[i,k]]) * (y[i,k] - phi[i,t[i,k]])/var[i,k]
        }
        D[i] <- sum(Darm[i,1:na[i]])
    }
    D.bar <- sum(D[])
}
```

(2) Random effects model for dichotomous data

```
model {
    for(i in 1:ns) {
        w[i,1] <- 0
        delta[i, t[i,1]] <- 0
        for (k in 1:na[i]) {
        r[i, t[i, k]] ~ dbin(p[i,t[i,k]], n[i,t[i,k]])
        }
#Binomial Likelihood#
for (k in 1:na[i]) {
r[i,t[i,k]] ~ dbin(p[i,t[i,k]],n[i,t[i,k]])
}

#Parameterization of the model#
        logit(p[i,t[i,1]]) <- mu[i]
        for(k in 2:na[i]) {
        logit(p[i,t[i,k]]) <- mu[i] + delta[i, t[i,k]]
            delta[i,t[i,k]] ~ dnorm(md[i,t[i,k]], taud[i,t[i,k]])
            taud[i,t[i,k]] <- tau * 2 * (k-1)/k
            md[i,t[i,k]] <- d[t[i,k]] - d[t[i,1]] + sw[i,k]
            w[i,k] <- (delta[i,t[i,k]] - d[t[i,k]] + d[t[i,1]])
            sw[i,k] <- sum(w[i,1:k-1])/(k-1)
        }
```

```
}
#Priors#
    sd ~ dnorm(0,1)
    tau <- 1/pow(sd,2)
    for(k in 1:(ref - 1)) {d[k] ~ dnorm(0,.0001)}
    for(k in (ref + 1):nt) {d[k] ~ dnorm(0,.0001)}
    for(i in 1:ns) {mu[i] ~ dnorm(0,.0001)
    }
#Calculate the pooled OR and prediction interval#
    d[ref] <- 0
    for(c in 1:(ref - 1)) {
        OR.ref[c] <- exp(d[c] - d[ref])
        LOR.ref[c] <- d[c] - d[ref]
        predLOR.ref[c] ~ dnorm(LOR.ref[c],tau)
        predOR.ref[c] <- exp(predLOR.ref[c])}
    for(c in (ref + 1):nt){
        OR.ref[c] <- exp(d[c] - d[ref])
        LOR.ref[c] <- d[c] - d[ref]
        predLOR.ref[c] ~ dnorm(LOR.ref[c],tau)
        predOR.ref[c] <- exp(predLOR.ref[c])}
    for(i in 1:(nt-1)){
        for (j in (i + 1):nt) {
            OR[i,j] <- exp(d[i] - d[j])
            LOR[i,j] <- d[i] - d[j]
            predLOR[i,j] ~ dnorm(LOR[i,j],tau)
            predOR[i,j] <- exp(predLOR[i,j])}
    }
#Ranking of effectiveness#
    for (k in 1:nt) {
        order[k] <- rank(d[],k)
        most.effective[k] <- equals(order[k],1)
        for(j in 1:nt){
            effectiveness[k,j] <- equals(order[k],j)}
    }
    for(k in 1:nt) {
        for(j in 1:nt){
            cumeffectiveness[k,j] <- sum(effectiveness[k,1:j])}
    }
# Calculate the SUCRAS#
    for (k in 1:nt) {
        SUCRA[k] <- sum(cumeffectiveness[k,1:(nt - 1)])/(nt - 1)
    }
#Fit of the Model#
    for(i in 1:ns){
        for(k in 1:na[i]) {
            Darm[i,k] <- -2 * (r[i,t[i,k]] * log(n[i,t[i,k]] * p[i,t[i,k]] / r[i,t[i,k]]) + (n[i,t[i,k]] - r[i,t[i,k]]) *
log((n[i,t[i,k]] - n[i,t[i,k]] * p[i,t[i,k]]) / (n[i,t[i,k]] - r[i,t[i,k]])))}
        D[i] <- sum(Darm[i,1:na[i]])
    }
    D.bar <- sum(D[])
}
```

Supplementary Table 1. Characteristics of the included studies

Study	Treatment	Number of Patients	Age	Proportion of male	Duration of disease	Duration of treatment	Time of follow up	Assessment tool			Supplementary therapy for all patients	Systematic condition	Country
								Pain Scale	Function Scale	ROM			
Ahn et al, 2015	Steroid injection	57	55.23±4.69	14.04%	7.23±1.94 months	2 weeks	Week 4/12/24	VAS	SPADI	PROM	Simple exercise program	No systematic rheumatic disease, neurologic disorder	Korea
	Distension	64	54.63±5.62	17.19%	7.43±2.32 months								
Akbaş et al, 2015	Manipulation	18	53.94±9.38	61.11%	3.52±3.48 months	3 weeks	Week 3	VAS	SPADI	ROM	Containing self-exercise	No neurologic problems	Turkey
	Conventional physiotherapy	18	54.81±11.96	50.00%									
Ali et al, 2015	Manual therapy	22	51.31(25-60)	<30%	≥3 months	5 weeks	Week 5	VAS	SPADI	ROM	Self-exercise	No diabetes	Pakistan
	Placebo	21	51.71(25-60)	<30%									
Arslan et al, 2001	Steroid injection	10	55.6±12.2	30.00%	4.6±1.6 months	NA	Week 2/12	VAS	NA	No details	Coddman exercises	No polyarthritis or neurological disease, stroke, glenohumeral arthritis	Turkey
	NSAIDs +Conventional physiotherapy	10	56.4±7.1	70.00%	3.5±1.7 months								
Asheghan et al, 2016	Acupuncture	20	54.65±8.25	40.00%	4.05±2.06 months	5 weeks	Week 6/12	VAS	SPADI	A/PROM	Ibuprofen	Containing diabetes, hypothyroidism, arthritis rheumatoid	Iran
	Conventional physiotherapy	20	54.45±8.04	45.00%	4.10±2.17 months								

Bal et al, 2008	Steroid injection +Conventional physiotherapy	40	56.9±9.56	37.50%	6-25 weeks	12 weeks	Week 2/12	VAS	SPADI	PROM	Self-exercise	Uncontrolled diabetes mellitus	Turkey
	Conventional physiotherapy	24	56.3±8.16	58.33%									
Balci et al, 2018	Ultrasound	15	55.33±6.59	46.67%	22.00±14.8 1 weeks	6 weeks	Week 6/24	VAS	SDQ	AROM	Self-exercise, paracetamol	No rheumatic or neurological disease	Turkey
	Conventional physiotherapy	15	56.00±9.81	46.67%	21.00±10.7 weeks	2 weeks							
Binder et al, 1986	Oral glucocorticoid	20	54.8(45-76)	40% (total)	5.5 (1-12) months	6 weeks	Week 2/4/6/12/16/20/24 /28/32	VAS	NA	No details	Self-exercise, Nonsalicylate analgesic agents and diazepam were available; NSAIDs were stopped	Diabetes included; No generalized arthritis	UK
	Placebo	20											
Buchbinder et al, 2004a	Oral glucocorticoid	24	53.5±5.1	16.67%	25.5 (13.3) weeks	3 weeks	Week 3/6/12	10-point Likert scale	SPADI	AROM	Self-exercise	No systemic inflammatory joint disease, or diabetes mellitus	Australia
	Placebo	25	55.0±9.0	40.00%	21.1 (13.8) weeks								
Buchbinder et al, 2004b	Distension +Steroid injection	25	57.2±8.6	80.00%	118 (102–194) days	NA	Week 3/6/12	10point Likert scale	SPADI	AROM	Self-exercise, stop NSAIDs, but paracetamol and codeine preparations were allowed	Diabetes included; No systemic inflammatory joint disease	Australia
	Placebo	21	57.5±8.1	80.95%	114 (96–402) days								
Buchbinder et al, 2007	Distension+ Conventional physiotherapy	75	55.0±9.3	32.00%	6 (3–60) months	6 weeks	Week 6/12/26	10-point Likert scale	SPADI	AROM, HBB	Self-exercise, Analgesia and NSAIDs were permitted	No systemic inflammatory joint disease	Australia
	Distension	74	55.3±7.7	41.89%	6 (3–57) months								

Calis et al, 2006	Hyaluronate	24	59.7±9.81	41.67%	NA	2 weeks	Week 2/12	NA	CMS	PROM	Codman exercises, paracetamol	No neurological, endocrine, or cardiovascular disease	Turkey
	Steroid injection	25	56.36±11.3	36.00%	NA								
	Conventional physiotherapy	21	52.33±10.1	38.10%	NA								
	Placebo	20	59.25±6.8	30.00%									
Carette et al, 2003	Steroid injection	23	55.4±10.0	65.22%	21.2±11.0 weeks	4 weeks	Week 6/12/24/48	SPADI-p	SPADI	A/PROM, HBB	Self-exercise	No metabolic or cerebrovascular accident	Canada
	Steroid injection +Conventional physiotherapy	21	54.9±10.5	66.67%	22.1±14.9 weeks								
	Conventional physiotherapy	26	54.2±8.3	46.15%	20.8±11.2 weeks								
	Placebo	23	56.5±9.4	60.87%	20.3±7.3 weeks								
Celik et al, 2016a	Mobilization	12	54.2±7.9	25.00%	6.71±6.50 months	6 weeks	Week 6/52	VAS	CMS	PROM	Self-exercise	No diabetes, rheumatological disorders, or neurological disorders	Turkey
	Stretching	14	54.8±6.4	35.71%	6.706±.05 months								
Celik et al, 2016b	Matrix Rhythm Therapy	21	53.1(42-65)	23.81%	15.7 (14-21) weeks	6 weeks	Week 3/6/24	NA	CMS	PROM	Self-exercise	No rheumatological or neurological disorders	Turkey
	Stretching	22	52.7 (40-65)	27.27%									
Cheing et al, 2008	Acupuncture	24	33-90 (total)	31.43% (total)	6.71±6.50 months	4 weeks	Week 4	VAS	CMS	No details	Self-exercise	Not mentioned	Hong Kong
	Conventional physiotherapy (Electrotherapy)	23			6.70±6.05 months								

	Placebo	23			8.26±7.94 months								
Chen et al, 2013	Acupuncture	35	58.4（45-72)	22.86%	6-24 months	4 weeks	Week 4	VAS	Melle score	No details	Self-exercise	No diabetes	China
	Conventional physiotherapy (Electrotherapy)	36	57.2(47-70)	38.89%	7-26 months								
	Massage	39	59.00(48-75)	33.33%	6-23 months								
Chen et al, 2014	Shockwave	17	52.4±8.2	35.29%	≥ 3 months	4 weeks	Week 2/4/6/12	VAS	CMS	ROM	Self-exercise	No cerebrovascular accident	Taiwan
	Oral glucocorticoid	17	54.3±8.6	29.41%									
Dacre et al, 1989	Steroid injection +Conventional physiotherapy	20	55.8	40.00%	NA	4-6 weeks	Week 6/24	VAS	NA	PROM	Not mentioned	Diabetes and thyrotoxicosis included; No stroke or generalized arthritis	UK
	Steroid injection	22	55.8	50.00%									
	Conventional physiotherapy	20	53	45.00%									
Dehghan et al, 2013	Steroid injection	29	55.31±7.7	27.59%	<6 months	1 week	Week 2/6/12/24	VAS	NA	A/PROM	Self-exercise	No stroke	Iran
	NSAIDs	28	52.78±6.72	39.29%									
Diercks et al, 2004	Supervised neglect	45	50±6	42.22%	5 (3–12) months	NA	Month 3/6/9/12/15/18/21/24	NA	CMS	No details	Self-exercise, antiinflammatory medication (nonsteroidal antiinflammatory drugs) or analgesics	No diabetes or inflammatory arthritis	Netherlands
	Stretching	32	51±7	34.38%	5 (3–10) months								
Dogru 2008	Ultrasound	25	53.9±7.8	44.00%	6.3±3.5 (3-12) months	2 weeks	Week 2/12	VAS	SPADI	PROM	Self-exercise	Diabetes included	Turkey

	Conventional physiotherapy	24	56.8±7.3	41.67%	5.2±2.9 (3-12) months								
Doner et al, 2013	Manipulation	20	59.25±9.17	35.00%	≥ 3 months	3 weeks	Week 3/12	VAS	CMS	A/PROM	Self-exercise	No uncontrolled diabetes mellitus	Turkey
	Stretching	20	58.55 ±8.57	10.00%									
Dundar et al, 2009	Continuous passive motion	29	56.3±7.8	31.03%	6.3±4.2 months	4 weeks	Week 4/12	VAS	CMS	PROM	Self-exercise	Not mentioned	Turkey
	Conventional physiotherapy	28	57.1±8.3	32.14%	5.9±4.0 months								
Ebadi 2016	Ultrasound	25	50.56±8.06	40.00%	5.24±1.96 months	3 weeks	Week 3/12	VAS	OSS	A/PROM	Not mentioned	No diabetes or rheumatoid arthritis	Iran
	Conventional physiotherapy	25	48.92±5.81	40.00%	5.48±1.87 months								
Ekim et al, 2016	Continuous passive motion	20	60.5±8.1	35.00%	10.5(6.3–16.5) months	12 weeks	Week 4/12	VAS	CMS	A/PROM	Self-exercise	All patients were diabetes	Turkey
	Conventional physiotherapy	21	60.4±6.7	38.10%	8.0(6.0–12.0) months								
Gam et al, 1998	Distension	12	53.5	33.33%	5 (4.3–6.0) months	6 weeks	Week 1-12 (assessed Weekly)	VAS	NA	No details	Self-exercise, analgesics	No diabetes or rheumatic disease	Denmark
	Steroid injection	8	47	37.50%	4.5 (3.3-5.8) months								
Gang et al, 2006	Shockwave	42	57.27±7.6	45.24%	5.36±4.97 months	3 weeks	Week 3	VAS	CMS	No details	Not mentioned	No neurological disease	China
	Mobilization	40	53.87±9.49	40.00%	5.19±4.84 months								

Gaspar et al, 2009	Stretching	16	55.6±7.9 (total)	NA	Stage 2	90 days	NA	NA	NA	A/PROM	Not mentioned	Not mentioned	US
	Conventional physiotherapy	15											
	Steroid injection	15											
Guler Uysal et al, 2004	Massage+ mobilisation	20	53.6±6.9	25.00%	7.6±3.9 months	NA	Week 1/2	VAS	NA	PROM	Not mentioned	No polyarthritis or neurological diseases	Turkey
	Conventional physiotherapy	20	58.4±9.7	35.00%	5.6±3.9 months								
Guo et al, 2018	Distension+ Steroid injection	40	53.7±6.2	47.50%	5.58±0.29 months	6 weeks	Week 6/12	VAS	NA	No details	Self-exercise	No diabetes or rheumatic disease	China
	Steroid injection	42	54.1±5.9	47.62%	5.14±0.29 months								
Hsieh et al, 2012	Hyaluronate	32	52.6±6.3	37.50%	5.2±2.6 months	3 weeks	Week 6/12	SPADI-p	SPADI	A/PROM	Therapeutic exercise	No rheumatoid arthritis	Taiwan
	Conventional physiotherapy	31	56.4±9.0	25.81%	3.8±2.6 months	12 weeks							
Hussein et al, 2015	Stretching	30	51.9	48.33% (total)	Stage 3-4	4 weeks	Week 4/12/24/52	VAS	DASH	A/PROM	Self-exercise	No diabetes	Egypt
	Conventional physiotherapy	30	51.2										
Hussein 2016	Shockwave	53	55.81±1.29	39.62%	11.55±0.17 months	4 weeks	Week 4/24	VAS	DASH	A/PROM	Self-exercise, analgesics	No diabetes	Egypt
	Placebo	53	55.83±1.34	35.85%	11.60±0.18 months								
Ibrahim et al, 2012	Stretching	30	52±10	50.00%	NA	4 weeks	Week 4/12/24	VAS	DASH	A/PROM	Self-exercise	No diabetes	US

	Conventional physiotherapy	30	51±11	46.67%									
Ibrahim et al, 2014	Stretching	30	51.9	48.33% (total)	Stage 3-4	4 weeks	Week 4/12/24/52	VAS	DASH	A/PROM	Self-exercise	No diabetes	US
	Conventional physiotherapy	30	51.2		Stage 3-4								
Jacobs et al, 1991	Distension+ Steroid injection	18	55	50.00%	8 (1-24) months	12 weeks	Week 6/12	NA	NA	PROM	Self-exercise, analgesics	No diabetes	England
	Distension	16	53	31.25%	6 (1-24) months								
	Steroid injection	16	52	31.25%	6 (1-24) months								
Ji et al, 2015	Acupuncture	59	51.2±7.1	44.07%	15.2±8.3 months	NA	Week 1/4	VAS	Shoulder joint function score	No details	Analgesics	Not mentioned	China
	Nerve block	58	49.6±9.7	48.28%	14.9±9.5 months								
Jones et al, 1999	Nerve block	15	60±16	53.33%	Stage 2-3	NA	Week 1/3/7/12	Total pain score	NA	ROM	Self-exercise	No diabetes or rheumatoid arthritis	UK
	Steroid injection	15	53±10	46.67%	Stage 2-3								
Kilic et al, 2015	Nerve block	19	55.05±8.29	21.05%	>1 month	3 weeks	Week 3/4	VAS	CMS	No details	Self-exercise	Diabetes included; No neurologic disease	Turkey
	Conventional physiotherapy	22	61.82±9.39	27.27%									
Kim 2015	Laser	33	57.5±8.7	15.15%	6.0±4.9 months	3 weeks	Week 3/8/12	VAS	SPADI	PROM	Self-exercise, and NSAIDs	Diabetes included; No rheumatoid arthritis	Korea
	Placebo	33	55.6±7.9	15.15%	4.6±2.7 months								

Kim et al, 2017	Hyaluronate+tramadol	16	55.9±5.8	68.75%	3.9±1.8 months	5 weeks	Week 1/2/3/4/6	VAS	SPADI	PROM	Self-exercise	No stroke or endocrine diseases	Korea
	Hyaluronate	14	54.6±5.8	64.29%	4.0±1.6 months								
Kim et al, 2018	Acupuncture	15	55.67±4.64	60.00%	3-12 months	6 weeks	Week 4/7/11	NRS	SPADI	ROM	Self-exercise	No rheumatoid arthritis	Korea
	Placebo	15	51.53±10.17	60.00%									
Kivimaki et al, 2001	Steroid injection+ manipulation	13	51(35-68)	50% (total)	7(3-8) months	1 day	Day 1/Week 12	NA	NA	PROM	Analgesics	Diabetes included	Finland
	Manipulation under anaesthesia	11											
Koh et al, 2013	Bee venom+ Conventional physiotherapy	22	54.95±6.79	27.27%	6 months	2 months	Week 2/4/8/12	VAS	SPADI	A/PROM	Self-exercise	No diabetes or cerebrovascular disorders	Korea
	Conventional physiotherapy	23	55.13±7.01	26.09%	6.65 months								
Kothari et al, 2017	Platelet rich plasma	62	51.9±10.1	54.84%	4.1±2.5 months	2 weeks	Week 3/6/12	VAS	QuickDASH	A/PROM	Self-exercise	No chronic diseases	India
	Steroid injection	60	52.7±8.6	48.33%	5.2±2.8 months								
	Ultrasound	58	51.2±11.7	39.66%	4.7±2.1 months								
Kraal et al, 2018	Steroid injection+ Conventional physiotherapy	10	53.3±3.8	50.00%	≥6 months	3 months	Week 6/12/26	NRS	SPADI	PROM	Supportive therapy exercises, and acetaminophen/tramadol	No systemic inflammatory disease or neurological disorder	Netherlands
	Steroid injection	11	50.4±6.1	36.36%	≤6 months								

Leclaire et al, 1991	Electromagnetic therapy	22	58±6.9	62.07% (total)	17±2.1 weeks	12 weeks	Week 4/8/12	VAS	NA	ROM	Self-exercise, aspirin	No arthritis or neurologic disease	Canada
	Conventional physiotherapy	25											
Lee et al, 2017a	Distension+ Steroid injection	32	55.9±5.2	34.38%	8.2±1.5 months	12 weeks	Week 3/6/12	VAS	SPADI	PROM	Self-exercise	No rheumatoid arthritis, stroke, or uncontrolled diabetes	Korea
	Steroid injection	32	53.8±4.4	40.63%	7.8±1.7 months								
Lee et al, 2017b	Shockwave	15	58.4±4.0	NA	NA	4 weeks	Week 4	VAS	NA	ROM	Not mentioned	No neurological diseases or rheumatism	Korea
	Conventional physiotherapy	15	59.0±4.4										
Lim et al, 2014	Hyaluronate	34	53.8 (37-77)	27.94% (total)	7.3 (6-13) months	3 weeks	Week 2/12	VAS	CMS	ROM	Self-exercise, analgesics/NSAIDs	Diabetes included	Korea
	Steroid injection	34											
Lorbach et al, 2010	Steroid injection	20	50±8	35.00%	11 months	8 weeks	Week 4/8/12/24/52	VAS	CMS	PROM	Exercise	No insulin-dependent diabetes mellitus	Germany
	Oral glucocorticoid	20	52±10	50.00%	11 months								
Lv et al, 2016	Mobilization	40	54.3±5.7	40.00%	3.9±1.4 months	4 weeks	Week 4	VAS	NA	ROM	Self-exercise	Not mentioned	China
	Oral glucocorticoid	40	53.6±6.2	32.50%	3.6±1.2 months								
Ma et al, 2013	Cryotherapy	15	56.1±6.3	13.33%	4.3±1.2 months	4 weeks	Week 4	VAS	ASES	AROM	Physical therapy, analgesics were allowed	No diabetes mellitus, rheumatoid arthritis, thyroid	Korea
	Conventional physiotherapy	15	54.9±6.7	26.67%	5.3±1.5 months								

												disease or cardiovascular disease	
Mardjuadi et al,1978	Steroid injection	19	49.1±10.8	25.00%	3-6 months	NA	NA	VAS	Loss of function	No details	Not mentioned	Not mentioned	Belgium
	NSAIDs	20	51.9±10.5	20.00%	3-6 months								
Maryam et al, 2012	Steroid injection	31	53.33±7.49	12.90%	6.83±3.75 months	NA	Week 6/24	VAS	SPADI	A/PROM, HBB	Acetaminophen were allowed	Diabetes included; No cerebrovascular accident	Iran
	Steroid injection+ Conventional physiotherapy	29	53.71±6.69	13.79%	6.21±3.95 months								
	Conventional physiotherapy	27	53.73±7.49	3.70%	4.48±3.37 months								
Mun et al, 2016	Distension+ manipulation	60	52.1±6.4	41.67%	6.7±2.3 months	NA	Week 2/6/12/24/52	NA	CMS	No details	Oral NSAIDs+ exercise	Not mentioned	Korea
	Steroid injection	61	53.9±5.9	32.79%	6.3±2.1 months								
Nicholson et al, 1985	Mobilization	10	51±12.16	40.00%	27.6±33.41 weeks	4 weeks	Week 1/2/3/4	Pain questionnaire	NA	A/PROM	Self-exercise	No rheumatic disease	US
	Placebo	10	55±16.43	60.00%	30.8±31.28 weeks								
Pajareya et al, 2004	NSAIDs +Conventional physiotherapy	60	56.3±10.6	40.00%	6-12 weeks	3 weeks	Week 3/12	NA	SPADI	ROM	Not mentioned	No stroke or generalized arthritis	Thailand
	NSAIDs	59	57.7±10.0	23.73%	≥12 weeks								
Park et al, 2000	Distension+ Steroid injection	28	54.9±8.46	25.00%	5.49±4.08 months	NA	Week 1/4	VAS	SPADI	AROM	Not mentioned		
	Steroid injection	27	57.7±9.28	40.74%	4.67±2.79 months								

Park et al, 2013	Distension+ Hyaluronate	45	56.33±5.92	22.22%	5.33±3.62 months	6 weeks	Week 2/6	VNS	SPADI	PROM	Self-exercise, acetaminophen	No systematic rheumatic disease, stroke, or diabetes mellitus	Korea
	Steroid injection	45	55.23±4.69	26.67%	5.31±1.64 months								
Park et al, 2014	Distension+Steroid injection+intensive mobilization	16	56.0±7.6 (total)	24.53% (total)	3–9 months	4 weeks	Week 4	VNS	SPADI	AROM, HBB	General physical therapy including self-exercise	Not mentioned	Korea
	Intensive mobilization	14											
	Distension+ Steroid injection	12											
	Conventional physiotherapy	11											
Paul et al, 2014	Moilization+ Stretching	50	49.16±6.09	64.00%	NA	2 weeks	Week 2	VAS	NA	ROM	Not mentioned	Not mentioned	India
	Conventional physiotherapy	50	53.22±6.74	66.00%									
Prestgaard et al, 2015	Steroid injection	42	53.2±6.9	35.71%	15.1±4.6 weeks	NA	Week 3/6/12/26	NRS	SPADI	AROM	Self-exercise, no specific instructions for analgesics	Controlled diabetes included; No systemic inflammatory joint disease, polymyalgia rheumatica	Norway
	Placebo	40	55.4±6.5	35.00%	15.0±5.6 weeks								
Quraishi et al, 2007	Distension	19	55.2 (44-70)	41.67% (total)	37.4(12-76) weeks	NA	Week 8/24	NA	CMS	No details	Self-exercise	Diabetes included	Canada

	Manipulation under anaesthesia	17	54.5 (39-69)		39.8 (16-102) weeks								
Ranalletta et al, 2016	Steroid injection +Supervised exercise	35	62.9±12.2	31.43%	12 (8-16) weeks	NA	Week 2/4/8/12	VAS	CMS	PROM	Supervised exercise	Diabetes and hypothyroidism included	Argentina
	NSAIDs+Supervised exercise	34	63.9±9.1	35.29%	12 (8-24) weeks								
Reza et al, 2013	Distension+ Steroid injection	50	61±9	50.00%	112±14 days	1 weeks	Day 2/Week 12	VAS	NA	AROM	Self-exercise	No diabetes mellitus or polyarthritis	Iran
	Steroid injection	50	58±11	50.00%	119±11 days								
Robinson et al, 2017	Conventional physiotherapy	20	57.9 (53.2-62.5)	35.00%	8.5 (7.2-9.7) months	4 weeks	Week 4/12/24/52	VAS	OSS	PROM	Self-exercise	Diabetes included; No shoulder pathology-related inflammatory joint disease, or neurologic pain	UK
	Placebo	21	55.2 (52.5-58.0)	29.00%	6.5 (5.5-7.5) months								
Roh et al, 2012	Steroid injection +Conventional physiotherapy	23	54.4±10.9	69.57%	6.2±4.3 months	NA	Week 4/12/24	VAS	ASES	PROM	Self-exercise	Diabetes included; No cerebrovascular accident	Iran
	Stretching	22	55.3±11.2	63.64%	6.5±4.0 months								
Rouhani et al, 2016	Calcitonin	32	52.4±4.6	37.50%	NA	6 weeks	Week 6	VAS	SPADI	PROM	NSAIDs and physiotherapy	Diabetes included; No parathyroid disorders	Iran
	Placebo	32	53.2±4.9	28.13%									

Russell et al, 2014	Supervised exercise	25	51.1（40-65）	53.27% (total)	5.79 (4-10) months	6 weeks	Week 6/24/52	NA	NA	ROM	Self-exercise, analgesics	No cerebrovascular accident, inflammatory joint disease, or thyroid disease	UK
	Conventional physiotherapy	24											
	Placebo	26											
Ryans et al, 2005	Steroid injection	19	52.3±9.3	31.58%	12.2±5.3 months	4 weeks	Week 6/16	VAS	SDQ	PROM	Self-exercise, paracetamol	Diabetes included; No inflammatory joint disease or cerebrovascular accident	UK
	Steroid injection +Conventional physiotherapy	20	56.3±6.4	55.00%	14.2±4.4 months								
	Conventional physiotherapy	20	52.6±7.7	30.00%	14.4±4.4 months								
	Placebo	19	55.2±9.4	47.37%	14.9±3.7 months								
Saeidian et al, 2007	NSAIDs+Conventional physiotherapy	30	44-67	NA	5 months	10 days	Week 2	VAS	NA	No details	Physiotherapy, oral diclofenac	No diabetes, inflammatory joint diseases	Iran
	Steroid injection	30											
Schroder et al, 2017	Acupuncture	30	55.1±10.4	33.33%	16.0±23.6 months	10 weeks	Week 10/52	CMS-p	NA	No details	NSAIDs	No paralysis, neurological changes of the affected upper limb, or inflammatory arthritis	Germany
	Placebo	30	51.9±8.9	36.67%	15.6±18.8 months								

Schydlowsky et al, 2012	Adalimumab	10	51 (41–67)	20.00%	>3 weeks (Stage 1)	4 weeks	Week 2/4/8/12/24	NA	SPADI	A/PROM	Not mentioned	Not mentioned	Denmark
	Steroid injection	8	51 (37–64)	37.50%									
Sharma et al, 2016	Distension+Steroid injection	34	53±9.2	38.24%	7.0 (3.0–37.0) months	8 weeks	Week 4/8/52	NRS	SPADI	PROM	Analgesics other than corticosteroid injections	No diabetes	Norway
	Steroid injection	36	53±9.2	41.67%	7.5 (2.0–18.0) months								
	Conventional physiotherapy	36	54±6.9	47.22%	6.0 (3.0–24.0) months								
Shen et al, 2015	Steroid injection +Conventional physiotherapy	60	54.2±11.0	36.67%	25.9±13.1 weeks	3 weeks	Week 1/2/4	VAS	NA	No details	Self-exercise+ supervised exercise	No diabetes or cerebrovascular disorders	China
	Steroid injection	60	52.5±10.8	40.00%	25.8±13.0 weeks								
Shin et al, 2013	Steroid injection	42	55.1±4.6	38.10%	7.4±3.4 months	6 weeks	Week 2/4/8/16/24	NA	ASES	No details	Self-exercise	Not mentioned	Korea
	NSAIDs	36	57.3±6.4	36.11%	6.8±2.7 months								
Singh et al, 2017	Steroid injection	35	NA	NA	Stage 1 and 2	6 weeks	Week 6/12	SPADI-p	NA	PROM	Conventional exercise therapy	No diabetes, inflammatory joint disease, neurological problem	US
	Ultrasound	33											
	Placebo	31											
Soliman et al, 2014	Laser	20	59.55±3.03	30.00%	2-7 months	8 weeks	Week 4/8	NA	NA	ROM	Self-exercise	Diabetes included; No	Egypt
	Massage	20	57.7±7.98	80.00%									

												neurological disorder	
Stergioulas 2008	Laser	31	55.51±5.84	61.29%	26.5±12.8 weeks	8 weeks	Week 4/8/16	VAS	SPADI	AROM	Self-exercise	No insulin-dependent diabetes or systemic inflammatory joint disease	Greece
	Placebo	32	56.83±6.82	65.63%	27.1±13.6 weeks								
Sun et al, 2001	Acupuncture	13	55.0±7.6(41-64)	30.77%	5.5±1.6 months	6 weeks	Week 6/20	NA	CMS	No details	Ketoprofen	No paresis, other neurological changes, or associated inflammatory arthritis	China
	Conventional physiotherapy	22	57.1±8.6(42-69)	31.82%	7.1±3.9 months								
Tveita et al, 2008	Distension+ Steroid injection	39	52±7	33.33%	7±4 months	NA	Week 6	NA	SPADI	A/PROM	No specific physiotherapy/manipulation, or NSAIDs	No diabetes	Norway
	Steroid injection	37	51±6	48.65%	7±4 months								
Vahdatpour 2014	Shockwave	19	56.1±10.6	31.58%	NA	4 weeks	Week 4/8/20	SPADI-p	SPADI	ROM	Self-exercise, meloxicam	Not mentioned	Iran
	Placebo	17	60.3±4.8	29.41%									
Wang et al, 2009	Laser	47	22-69	40.43%	12 days-6 months	22 days	Day 10/22	VAS	NA	No details	Not mentioned	No rheumatoid arthritis or neurological diseases	China
	Conventional physiotherapy	44	22-68	47.73%	16 days-6 months								
Windt et al, 1998	Steroid injection +NSAIDs	52	57.3±10.2	52.83%	1-3 months	6 weeks	Week 3/7/13/26/52	VAS	SDQ	PROM	Analgesics were allowed if pain was severe	No insulin-dependent	Netherlands

	Conventional physiotherapy	56	60.2±10.7	41.07%								diabetes, musculoskeletal or neurological disorders	
Xu et al, 2006	Acupuncture	108	53.6±2.4	34.26%	4.6±2.4 months	1 weeks	Week 1	VAS	NA	No details	Not mentioned	No cerebrovascular accident	China
	NSAIDs	108	55.1±2.3	36.11%	4.8±2.3 months								
Xu et al, 2015	Manipulation	60	58.32±7.07	40.00%	<6 months	3 weeks	Week 3	VAS	CMS	AROM	Not mentioned	Not mentioned	China
	Steroid injection	60	56.28±8.40	36.67%									
Yoon et al, 2013	Steroid injection	40	54.2±5.1	55.00%	5.5±2.5 months	NA	Week 1/3/6/12	VAS	SPADI	PROM	Self-exercise	Not mentioned	Korea
	Placebo	11	55.9±3.1	45.45%	5.1±3.1 months								
Yoon et al, 2016	Distension	29	53±8	37.93%	9±6 months	10 weeks	Week 4/12/24	VAS	CMS	PROM	Self-exercise, NSAIDs	Diabetes, hypertension, heart disease and thyroid disease included	Korea
	Steroid injection	28	54±9	32.14%	9±6 months								
Zhao et al, 2006	Acupuncture	21	43.14±8.77	NA	10.12±8.08 months	2 weeks	Week 2	NA	CMS	No details	Not mentioned	Not mentioned	China
	Placebo	21	39.07±7.53		11.58±8.90 months								
Zhou et al, 2010	Shockwave	26	48.35±9.56	57.69%	＞ 6 months	10 days	Day 1/5/10	VAS	NA	No details	No analgesics		China

Mobilization	21	50.05±10.58	57.14%			No diabetes or neurological diseases

ASES=American shoulder and elbow surgeons shoulder scores; CMS=Constant-Murley shoulder function assessment score; DASH=disabilities arm shoulder and hand questionnaire; NA=not applicable; NRS=numerical rating scale; OSS=Oxford shoulder score; ROM=range of motion (AROM=active ROM; PROM=passive ROM); SDQ=shoulder disability questionnaire; SPADI=shoulder pain and disability index; VAS=visual analog scale; VNS=verbal numeric score.

Supplementary Table 2. Abbreviations for Intervention Components for Frozen Shoulders

Treatment Abbreviation	Intervention Components
ac	Acupuncture
ad	Adalimumab
bc	Bee venom with conventional physiotherapy
ca	Calcitonin
cpm	Continuous passive motion
cpt	Conventional physiotherapy
cr	Cryotherapy
dt	Capsular distension
hy	Hyaluronate
tr	Tramadol
mn	Manipulation
mrt	Matrix rhythm therapy
mt	Magnetic therapy
ls	Laser therapy
nb	Nerve block
nn	NSAIDs
oc	Oral glucocorticoids
pl	Placebo
prp	Platelet rich plasma
si	Intra-articular steroid injection
st	Stretching
su	Supervised exercise
sw	Extracorporeal shockwave therapy (ESWT)
us	Ultrasound therapy
	Combined Components
sm	si+mn
sn	si+nn
sc	si+cpt
nc	nn+cpt
ht	hy+tr
ds	dt+si
dm	dt+mn
dh	dt+hy
dc	dt+cpt

Supplementary Table 3. Number summary of studies and patients from pairwise meta-analysis for each outcome

	Mean Change in Pain Score (T/P)	Mean Change in Function Score (T/P)	Mean Change in Passive Flexion (T/P)	Mean Change in Passive Abduction (T/P)	Mean Change in Passive ER (T/P)	Mean Change in Passive IR (T/P)	Mean Change in Active Flexion (T/P)	Mean Change in Active Abduction (T/P)	Mean Change in Active ER (T/P)	Mean Change in Active IR (T/P)	All-cause discontinuation (T/P)	Discontinuation due to adverse events (T/P)
ac vs.												
cpt	3/158	4/193	1/40	1/40	1/40	1/40	1/40	1/40	1/40	1/40	2/84	3/164
mn	1/74	1/74	NA	NA	NA	NA	NA	NA	NA	NA	2/160	1/80
nn	1/216	NA	NA	NA	NA	NA	NA	NA	NA	NA	1/216	NA
nb	1/117	1/117	NA	NA	NA	NA	NA	NA	NA	NA	1/132	1/132
pl	2/90	2/72	1/30	1/30	1/30	1/30	NA	NA	NA	NA	3/122	3/140
ad vs.												
si	NA	1/18	1/18	1/18	1/18	NA	1/18	1/18	1/18	NA	1/18	1/18
bc vs.												
cpt	1/45	1/45	1/45	1/45	1/45	NA	1/45	1/45	1/45	NA	1/45	1/45
ca vs.												
cpt	1/64	1/64	1/64	1/64	1/64	NA	NA	NA	NA	NA	1/72	1/72
cpm vs.												
cpt	2/98	2/98	2/98	2/98	2/98	2/98	1/41	1/41	1/41	1/41	2/98	2/98
cpt vs.												
pl	3/109	4/151	2/99	2/91	5/215	NA	NA	NA	NA	NA	6/269	6/269
cr vs.												
cpt	1/30	1/30	NA	NA	NA	NA	1/30	1/30	1/30	1/30	1/30	1/30
dc vs.												
dt	1/146	1/146	NA	NA	NA	NA	1/146	1/146	1/146	NA	1/156	1/156
si	NA	1/121	NA	NA	NA	1/57	NA	NA	NA	NA	1/136	1/136
dh vs.												
si	1/90	1/90	NA	1/90	1/90	NA	NA	NA	NA	NA	1/100	1/100
dm vs.												

cpt	1/27	1/27	NA	NA	NA	NA	1/27	1/27	1/27	NA	1/27	1/27
ds	1/28	1/28	NA	NA	NA	NA	1/28	1/28	1/28	NA	1/28	1/28
mn	1/30	1/30	NA	NA	NA	NA	1/30	1/30	1/30	NA	1/30	1/30
ds vs.												
cpt	2/93	2/93	NA	1/70	1/70	1/70	1/23	1/23	1/23	NA	2/93	2/93
dt	NA	NA	1/32	1/32	1/32	NA	NA	NA	NA	NA	1/34	NA
mn	1/26	1/26	NA	NA	NA	NA	1/26	1/26	1/26	NA	1/26	1/26
pl	1/42	1/42	NA	NA	NA	NA	1/42	1/42	1/42	NA	1/46	1/46
si	5/387	4/292	3/173	4/243	4/243	3/210	3/247	NA	3/247	3/247	6/431	5/401
dt vs.												
si	3/198	2/178	3/207	2/150	3/207	NA	NA	2/192	NA	NA	3/114	2/82
mn	NA	1/36	NA	NA	NA	NA	NA	NA	NA	NA	1/39	NA
ht vs.												
hy	1/30	1/30	0/30	1/30	1/30	1/30	1/63	NA	NA	NA	NA	NA
hy vs.												
cpt	1/63	2/112	0/63	2/112	2/112	1/63	NA	1/63	1/63	1/63	2/113	2/112
pl	NA	1/47	NA	1/47	1/47	NA	NA	NA	NA	NA	1/44	1/44
si	1/68	2/121	0/68	1/53	2/121	1/68	NA	NA	NA	NA	2/117	2/129
ls vs.												
cpt	1/91	NA	NA	NA	NA	NA	NA	NA	NA	NA	1/91	1/91
mn	NA	NA	1/40	1/40	1/40	1/40	NA	NA	NA	NA	1/40	1/40
pl	2/129	1/63	1/66	NA	1/66	NA	1/63	1/63	1/63	NA	1/66	1/66
mn vs.												
cpt	5/276	2/136	3/176	3/176	2/76	2/76	1/25	1/25	1/25	NA	5/281	5/281
oc	1/80	NA	NA	NA	1/80	1/80	NA	NA	NA	NA	1/80	NA
pl	2/63	1/43	NA	2/63	1/43	1/43	NA	1/20	1/20	1/20	2/64	1/44
si	1/120	1/120	NA	NA	NA	NA	1/120	1/120	1/120	1/120	/120	1/120
sm	NA	NA	1/24	1/24	1/24	/24	NA	NA	NA	NA	NA	NA
st	2/66	2/66	2/66	2/66	2/66	2/66	1/40	1/40	1/40	1/40	2/70	2/70
sw	2/129	1/82	NA	NA	NA	NA	NA	NA	NA	NA	2/129	1/82
mrt vs.												

st	NA	1/43	1/43	1/43	1/3	1/43	NA	NA	NA	NA	1/51	1/51
mt vs.												
cpt	1/47	NA	1/47	1/47	1/47	1/47	NA	NA	NA	NA	1/47	1/64
nb vs.												
cpt	1/41	1/41	NA	NA	NA	NA	NA	NA	NA	NA	1/41	1/41
si	1/30	NA	NA	1/30	1/30	NA	NA	NA	NA	NA	1/30	1/30
nc vs.												
n	NA	1/107	NA	1/107	1/107	1/107	NA	NA	NA	NA	1/122	1/122
si	1/60	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
oc vs.												
pl	2/86	1/46	NA	NA	NA	NA	1/46	1/46	1/46	NA	2/90	2/90
prp vs.												
si	1/122	1/122	1/122	1/122	1/122	1/122	1/122	1/122	1/122	1/122	1/130	1/130
us	1/120	1/120	1/120	1/120	1/120	1/120	1/120	1/120	1/120	1/120	1/130	1/130
sc vs.												
cpt	5/240	4/200	3/167	4/207	4/200	1/64	NA	NA	NA	NA	4/223	4/223
nc	1/69	1/69	1/69	0/69	NA	1/69	NA	NA	NA	NA	1/69	1/69
pl	2/73	2/73	1/44	0/44	2/73	NA	NA	NA	NA	NA	2/83	2/83
si	5/275	4/155	3/125	3/125	4/208	NA	NA	NA	NA	NA	4/263	5/310
st	1/45	NA	1/45	NA	1/45	1/45	NA	NA	NA	NA	NA	NA
si vs.												
cpt	4/178	5/256	2/107	4/197	4/184	NA	NA	NA	2/61	NA	5/264	5/263
nn	2/96	2/117	1/57	1/57	1/57	NA	NA	NA	NA	NA	3/212	3/212
nc	2/80	NA	/	NA	1/69	NA	NA	NA	NA	NA	1/20	1/20
oc	1/40	1/40	1/40	1/40	1/40	1/40	NA	NA	NA	NA	NA	NA
pl	5/250	6/296	2/77	4/189	5/241	1/31	1/82	1/82	1/82	NA	6/310	5/244
st	NA	NA	NA	NA	NA	NA	NA	NA	1/30	NA	NA	NA
us	2/186	2/186	NA	2/186	2/186	1/118	1/118	1/118	1/118	1/118	2/198	1/130
su vs.												
cpt	NA	NA	1/49	NA	1/49	NA	NA	NA	NA	NA	1/49	1/49
pl	NA	NA	1/51	NA	1/51	NA	NA	NA	NA	NA	1/51	1/51

st	NA	1/77	NA	NA	NA	NA	NA	NA	NA	NA	1/77	1/77
sn vs.												
cpt	1/107	1/107	NA	1/108	1/107	NA	NA	NA	NA	NA	1/109	1/109
st vs.												
cpt	3/180	3/180	NA	2/120	3/180	NA	NA	3/180	2/61	NA	3/180	3/226
pl										NA		
sw vs.												
cpt	1/30	NA	1/30	NA	1/30	NA	NA	NA	NA	NA	NA	NA
oc	1/34	1/34	1/34	1/34	1/34	NA	NA	NA	NA	NA	1/40	1/40
pl	2/142	2/142	1/36	2/142	2/142	1/36	NA	1/106	NA	NA	2/146	2/100
us vs.												
cpt	3/129	3/129	1/49	1/49	1/49	1/49	2/80	2/80	2/80	2/80	2/99	2/99
pl	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1/64	NA

Abbreviation: T=number of trials; P=number of patients; NA=not applicable.

Supplementary Table 4. Results of pairwise meta-analysis for each outcome

	Mean Change in Pain Score SMD (95% CI)	Mean Change in Function Score SMD (95% CI)	Mean Change in Passive Flexion SMD (95% CI)	Mean Change in Passive Abduction SMD (95% CI)	Mean Change in Passive ER SMD (95% CI)	Mean Change in Passive IR SMD (95% CI)	Mean Change in Active Flexion SMD (95% CI)	Mean Change in Active Abduction SMD (95% CI)	Mean Change in Active ER SMD (95% CI)	Mean Change in Active IR SMD (95% CI)	All-cause discontinuation OR (95% CI)	Discontinuation due to adverse events OR (95% CI)
ac vs.												
cpt	0.301 (-0.469, 1.072)	0.229 (-0.16 to 0.617)	**0.648 (0.011 to 1.284)**	**1.011 (0.351 to 1.671)**	0.383 (-0.243 to 1.009)	0.354 (-0.27 to 0.979)	**0.696 (0.057 to 1.335)**	**0.911 (0.258 to 1.563)**	0.552 (-0.08 to 1.184)	0.472 (-0.157 to 1.1)	0.546 (0.091 to 3.267)	5.4 (0.204 to 142.713)
mn	**-0.581 (-1.047, -0.115)**	**-1.087 (-1.576 to -0.597)**	NA	NA	NA	NA	NA	NA	NA	NA	2.083 (0.533 to 8.139)	ID
nn	0.091 (-0.176, 0.358)	NA	NA	NA	NA	NA	NA	NA	NA	NA	ID	NA
nb	**3.414 (2.843, 3.985)**	**8.996 (7.778 to 10.214)**	NA	NA	NA	NA	NA	NA	NA	NA	0.86 (0.293 to 2.526)	ID
pl	0.084 (-1.023, 1.190)	0.691 (-0.45 to 1.832)	-0.553 (-1.283 to 0.177)	-0.734 (-1.475 to 0.007)	-0.111 (-0.827 to 0.605)	0.628 (-0.106 to 1.363)	NA	NA	NA	NA	0.733 (0.148 to 3.639)	ID
ad vs.												
si	NA	-0.763 (-1.729 to 0.204)	-0.099 (-1.03 to 0.831)	**-1.604 (-2.687 to -0.521)**	-0.596 (-1.548 to 0.356)	NA	-0.202 (-1.135 to 0.73)	**-1.568 (-2.645 to -0.491)**	-0.055 (-0.985 to 0.875)	NA	11.769 (0.533 to 259.97)	5 (0.208 to 120.441)
bc vs.												
cpt	0.455 (-0.137, 1.048)	**0.722 (0.118 to 1.326)**	0.007 (-0.578 to 0.591)	0.159 (-0.426 to 0.745)	**0.615 (0.016 to 1.214)**	NA	-0.085 (-0.669 to 0.5)	0.132 (-0.453 to 0.717)	0.54 (-0.055 to 1.136)	NA	0.317 (0.03 to 3.311)	3.279 (0.127 to 84.875)
ca vs.												
cpt	**2.322 (1.684 to 2.96)**	**4.461 (3.535 to 5.386)**	**0.537 (0.038 to 1.036)**	**0.856 (0.344 to 1.369)**	**0.522 (0.024 to 1.021)**	NA	NA	NA	ID	NA	1 (0.23 to 4.349)	ID
cpm vs.												

cpt	0.455 (-0.125 to 1.034)	0.611 (-0.198 to 1.421)	0.693 (-0.633 to 2.019)	0.425 (-0.357 to 1.207)	0.373 (-0.387 to 1.133)	0.428 (-0.46 to 1.317)	**1.658 (0.944 to 2.372)**	**1.13 (0.468 to 1.791)**	**0.771 (0.135 to 1.407)**	**0.736 (0.103 to 1.37)**	ID	ID
cpt vs.												
pl	0.285 (-0.094 to 0.665)	0.642 (-0.229 to 1.513)	**2.391 (1.502 to 3.28)**	**1.649 (0.763 to 2.536)**	**0.765 (0.037 to 1.494)**	NA	NA	NA	NA	NA	0.611 (0.264 to 1.412)	0.2 (0.009 to 4.385)
cr vs.												
cpt	**1.78 (0.926 to 2.634)**	**3.521 (0.354 to 4.688)**	NA	NA	NA	NA	**2.438 (1.478 to 3.397)**	**2.299 (1.364 to 3.234)**	**1.868 (1.001 to 2.735)**	**3.354 (2.221 to 4.487)**	ID	ID
dc vs.												
dt	0.083 (-0.241 to 0.408)	0.098 (-0.227 to 0.423)	NA	NA	NA	NA	**0.378 (0.051 to 0.705)**	**0.426 (0.098 to 0.754)**	**0.552 (0.221 to 0.882)**	NA	0.473 (0.136 to 1.641)	3.039 (0.122 to 75.746)
si	NA	**2.483 (2.007 to 2.959)**	NA	NA	NA	0 (-0.519 to 0.519)	NA	NA	NA	NA	0.89 (0.304 to 2.607)	ID
dh vs.												
si	-0.243 (-0.657 to 0.172)	-0.279 (-0.694 to 0.136)	-0.121 (-0.534 to 0.293)	0.032 (-0.381 to 0.446)	**1.262 (0.808 to 1.715)**	NA	NA	NA	NA	NA	1 (0.271 to 3.694)	ID
dm vs.												
cpt	**2.562 (1.516 to 3.608)**	**1.871 (0.944 to 2.797)**	NA	NA	NA	NA	**1.45 (0.583 to 2.316)**	**1.708 (0.806 to 2.61)**	**1.67 (0.774 to 2.567)**	NA	ID	ID
ds	**2.282 (1.31 to 3.254)**	**1.747 (0.861 to 2.633)**	NA	NA	NA	NA	**1.608 (0.742 to 2.475)**	**1.847 (0.946 to 2.749)**	**2.551 (1.531 to 3.572)**	NA	ID	ID
mn	0.685 (-0.055 to 1.424)	**0.757 (0.013 to 1.501)**	NA	NA	NA	NA	0.391 (-0.333 to 1.116)	0.534 (-0.197 to 1.265)	**0.827 (0.078 to 1.576)**	NA	ID	ID
ds vs.												

cpt	0.817 (-0.222 to 1.856)	0.693 (-0.311 to 1.696)	NA	**0.793 (0.305 to 1.28)**	**0.634 (0.153 to 1.114)**	**0.707 (0.223 to 1.19)**	0.011 (-0.807 to 0.829)	-0.055 (-0.874 to 0.763)	-0.468 (-1.298 to 0.363)	NA	0.087 (0.018 to 0.423)	ID
dt	NA	NA	**1.481 (0.689 to 2.274)**	**1.707 (0.886 to 2.529)**	0.624 (-0.092 to 1.34)	NA	NA	NA	NA	NA	0.057 (0.003 to 1.121)	NA
mn	**-1.484 (-2.362 to -0.606)**	**-0.936 (-1.751 to -0.121)**	NA	NA	NA	NA	**-1.02 (-1.843 to -0.196)**	**-1.104 (-1.936 to -0.273)**	**-1.355 (-2.216 to -0.494)**	NA	ID	ID
pl	0.428 (-0.195 to 1.052)	-0.012 (-0.628 to 0.604)	NA	NA	NA	NA	-0.094 (-0.711 to 0.522)	0.174 (-0.444 to 0.791)	0.326 (-0.295 to 0.946)	NA	0.076 (0.004 to 1.508)	ID
si	**0.497 (0.088 to 0.906)**	0.04 (-0.19 to 0.27)	-0.141 (-0.471 to 0.188)	0.187 (-0.066 to 0.439)	0.086 (-0.166 to 0.339)	-0.113 (-0.384 to 0.158)	0.468 (-0.066 to 1.002)	0.605 (-0.134 to 1.343)	0.537 (-0.201 to 1.274)	0.233 (-0.018 to 0.483)	0.629 (0.268 to 1.475)	0.947 (0.057 to 15.721)
dt vs.												
si	1.005 (-0.435 to 2.446)	-0.031 (-0.526 to 0.465)	-0.206 (-0.743 to 0.331)	-0.381 (-1.908 to 1.146)	0.468 (-0.572 to 1.509)	NA	NA	NA	ID	NA	1.135 (0.33 to 3.906)	0.667 (0.036 to 12.27)
mn	NA	0.337 (-0.322 to 0.996)	NA	NA	NA	NA	NA	NA	NA	NA	0.447 (0.037 to 5.385)	NA
ht vs.												
hy	0.238 (-0.482 to 0.958)	-0.034 (-0.751 to 0.683)	0.038 (-0.68 to 0.755)	-0.157 (-0.875 to 0.562)	-0.16 (-0.879 to 0.558)	0.049 (-0.669 to 0.766)	ID	NA	NA	NA	NA	NA
hy vs.												
cpt	-0.322 (-0.819 to 0.175)	-0.089 (-0.46 to 0.283)	-0.05 (-0.544 to 0.444)	-0.132 (-0.504 to 0.241)	-0.215 (-0.588 to 0.158)	-0.648 (-0.155 to -0.141)	NA	0.017 (-0.477 to 0.511)	-0.01 (-0.504 to 0.483)	**-0.551 (-1.054 to -0.047)**	0.646 (0.101 to 4.133)	ID
pl	NA	**0.953 (0.342 to 1.564)**	NA	**0.867 (0.262 to 1.473)**	**1.026 (0.41 to 1.642)**	NA	NA	NA	NA	NA	ID	ID

si	-0.142 (-0.618 to 0.334)	0.132 (-0.443 to 0.707)	-0.308 (-0.787 to 0.17)	0.183 (-0.357 to 0.723)	**0.514 (0.151 to 0.877)**	-0.203 (-0.68 to 0.273)	NA	NA	NA	NA	5.69 (0.628 to 51.567)	ID
ls vs.												
cpt	**6.659 (5.598 to 7.72)**	NA	NA	NA	NA	NA	NA	NA	NA	NA	ID	ID
mn	NA	NA	**1.118 (0.449 to 1.787)**	**0.942 (0.287 to 1.597)**	**1.16 (0.487 to 1.832)**	**1.257 (0.576 to 1.938)**	NA	NA	NA	NA	ID	ID
pl	1.026 (-1.197 to 3.248)	**3.702 (2.88 to 4.524)**	-0.139 (-0.622 to 0.344)	NA	-0.483 (-0.973 to 0.006)	NA	**1.595 (1.026 to 2.164)**	-0.048 (-0.542 to 0.446)	**-0.693 (-1.202 to -0.184)**	NA	ID	ID
mn vs.												
cpt	**0.646 (0.238 to 1.055)**	**0.967 (0.61 to 1.324)**	0.409 (-0.097 to 0.915)	0.398 (-0.034 to 0.83)	**0.672 (0.105 to 1.239)**	0.447 (-0.009 to 0.902)	**0.939 (0.104 to 1.774)**	**1.008 (0.167 to 1.85)**	0.757 (-0.063 to 1.576)	NA	0.231 (0.025 to 2.163)	ID
oc	**2.009 (1.469 to 2.549)**	NA	NA	NA	**5.337 (4.392 to 6.282)**	**4.981 (4.085 to 5.877)**	NA	NA	NA	NA	ID	NA
pl	0.109 (-0.404 to 0.622)	-0.087 (-0.686 to 0.511)	NA	0.526 (-0.851 to 1.904)	-0.084 (-0.683 to 0.514)	-0.42 (-1.025 to 0.185)	NA	0.654 (-0.248 to 1.556)	0.287 (-0.594 to 1.169)	0.885 (-0.038 to 1.808)	0.319 (0.012 to 8.254)	ID
si	**1.052 (0.67 to 1.435)**	**2.232 (1.774 to 2.689)**	NA	NA	NA	NA	**0.718 (0.349 to 1.087)**	**0.663 (0.295 to 1.031)**	**0.839 (0.465 to 1.212)**	**0.374 (0.013 to 0.735)**	ID	ID
sm	NA	NA	-0.230 (-1.036 to 0.575)	0.063 (-0.74 to 0.867)	-0.149 (-0.953 to 0.656)	0.972 (0.12 to 1.825)	NA	NA	NA	NA	NA	NA
st	0.182 (-0.303 to 0.666)	**0.686 (0.186 to 1.185)**	0.389 (-0.1 to 0.878)	**0.662 (0.165 to 1.16)**	**0.829 (0.325 to 1.334)**	**0.903 (0.394 to 1.413)**	0.549 (-0.083 to 1.181)	**1.076 (0.411 to 1.742)**	**0.972 (0.315 to 1.629)**	**1.238 (0.559 to 1.918)**	3.5 (0.32 to 38.232)	ID
sw	-0.548 (-1.624, 0.528)	**-1.926 (-2.452 to -1.400)**	NA	NA	NA	NA	NA	NA	NA	NA	ID	ID
mrt vs.												
st	NA	0.113 (-0.485 to 0.712)	0.281 (-0.32 to 0.882)	0.091 (-0.507 to 0.69)	**-0.621 (-1.233 to -0.008)**	-0.01 (-0.608 to 0.588)	NA	NA	NA	NA	1.746 (0.37 to 8.237)	ID

mt vs.												
cpt	-0.152 (-0.726 to 0.422)	NA	-0.299 (-0.875 to 0.277)	-0.347 (-0.924 to 0.23)	-0.178 (-0.752 to 0.396)	0.097 (-0.477 to 0.67)	NA	NA	NA	NA	ID	ID
nb vs.												
cpt	**0.921 (0.274 to 1.568)**	0.545 (-0.08 to 1.171)	NA	NA	NA	NA	NA	NA	NA	NA	ID	ID
si	**1.349 (0.551 to 2.147)**	NA	NA	-0.304 (-1.024 to 0.416)	0 (-0.716 to 0.716)	NA	NA	NA	NA	NA	ID	ID
nc vs.												
n	NA	**0.579 (0.192 to 0.967)**	NA	0.366 (-0.017 to 0.749)	0.195 (-0.185 to 0.576)	**0.447 (0.063 to 0.832)**	NA	NA	NA	NA	0.455 (0.146 to 1.422)	ID
si	**-1.635 (-2.222 to -1.048)**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
oc vs.												
pl	0.247 (-0.727 to 1.221)	-0.41 (-0.995 to 0.175)	NA	NA	NA	NA	**-0.841 (-1.445 to -0.236)**	**-0.74 (-1.339 to -0.141)**	-0.086 (-0.665 to 0.492)	NA	0.102 (0.005 to 2.003)	0.347 (0.013 to 8.932)
prp vs.												
si	**0.728 (0.361 to 1.094)**	**0.728 (0.361 to 1.094)**	**0.765 (0.397 to 1.133)**	**0.635 (0.271 to 0.999)**	**0.546 (0.184 to 0.907)**	**0.5 (0.14 to 0.861)**	**0.724 (0.358 to 1.091)**	**0.635 (0.271 to 0.998)**	**0.508 (0.148 to 0.869)**	**0.557 (0.195 to 0.919)**	0.581 (0.133 to 2.537)	ID
us	**1.231 (0.84 to 1.621)**	**1.249 (0.857 to 1.641)**	**1.32 (0.924 to 1.716)**	**1.322 (0.926 to 1.717)**	**0.937 (0.56 to 1.315)**	**0.935 (0.558 to 1.313)**	**1.295 (0.901 to 1.689)**	**1.253 (0.861 to 1.646)**	**0.851 (0.477 to 1.225)**	**0.906 (0.53 to 1.283)**	0.401 (0.099 to 1.624)	ID
sc vs.												
cpt	0.269 (-0.05 to 0.588)	0.84 (-0.181 to 1.86)	1.127 (-0.481 to 2.735)	0.878 (-0.385 to 2.141)	0.915 (-0.434 to 2.264)	**-1.222 (-1.772 to -0.672)**	NA	NA	NA	NA	0.398 (0.102 to 1.546)	ID
nc	-0.133 (-0.606 to 0.339)	**0.639 (0.154 to 1.123)**	**1.173 (0.661 to 1.685)**	**1.225 (0.71 to 1.741)**	NA	**0.83 (0.338 to 1.323)**	NA	NA	NA	NA	1.5 (0.235 to 9.588)	ID

pl	0.396 (-0.441 to 1.233)	2.09 (-1.697 to 5.878)	**5.905 (4.511 to 7.3)**	**1.225 (0.71 to 1.741)**	2.427 (-2.634 to 7.488)	NA	NA	NA	NA	NA	0.658 (0.095 to 4.578)	ID
si	**0.44 (0.078 to 0.803)**	**0.492 (0.003 to 0.981)**	1.249 (-0.608 to 3.106)	0.81 (-0.189 to 1.809)	0.651 (-0.44 to 1.742)	NA	NA	NA	NA	NA	0.592 (0.107 to 3.284)	ID
st	0.525 (-0.07 to 1.12)	0.745 (0.138 to 1.350)	**0.833 (0.223 to 1.444)**	NA	**0.693 (0.09 to 1.296)**	**0.739 (0.134 to 1.344)**	NA	NA	NA	NA	NA	NA
si vs.												
cpt	0.131 (-0.165 to 0.427)	0.601 (-0.075 to 1.277)	0.028 (-0.352 to 0.408)	0.485 (-0.559 to 1.529)	0.543 (-0.629 to 1.715)	NA	NA	NA	ID	NA	0.624 (0.114 to 3.411)	ID
nn	0.147 (-0.254 to 0.547)	1.958 (-1.446 to 5.363)	0.391 (-0.134 to 0.915)	0.441 (-0.085 to 0.967)	0.092 (-0.428 to 0.611)	NA	NA	NA	NA	NA	0.826 (0.359 to 1.904)	ID
nc	0.953 (-0.457 to 2.363)	NA	/	NA	0.042 (-0.43 to 0.514)	NA	NA	NA	NA	NA	ID	ID
oc	0.305 (-0.319 to 0.928)	**1.146 (0.474 to 1.817)**	0.337 (-0.288 to 0.961)	0.565 (-0.068 to 1.198)	0 (-0.62 to 0.62)	0 (-0.62 to 0.62)	NA	NA	NA	NA	NA	NA
pl	**2.884 (1.049 to 4.719)**	**2.9 (1.284 to 4.516)**	1.753 (-0.277 to 3.783)	**4.804 (1.568 to 8.04)**	**2.675 (0.583 to 4.767)**	**1.305 (0.496 to 2.114)**	**0.576 (0.134 to 1.018)**	0.433 (-0.005 to 0.871)	**0.917 (0.461 to 1.373)**	NA	1.262 (0.309 to 5.155)	0.095 (0.005 to 1.832)
st	NA	NA	NA	NA	NA	NA	NA	NA	ID	NA	NA	NA
us	8.364 (-7.311 to 24.04)	6.469 (-5.431 to 18.368)	**0.5 (0.134 to 0.867)**	4.992 (-3.617 to 13.601)	3.756 (-2.892 to 10.404)	**0.42 (0.056 to 0.785)**	**0.498 (0.132 to 0.865)**	**0.574 (0.206 to 0.943)**	0.342 (-0.022 to 0.705)	0.329 (-0.034 to 0.692)	0.69 (0.207 to 2.299)	ID
sn vs.												
cpt	0.314 (-0.068 to 0.695)	0.317 (-0.064 to 0.699)	NA	**0.395 (0.014 to 0.777)**	**1 (0.597 to 1.402)**	NA	NA	NA	NA	NA	2.204 (0.387 to 12.568)	ID
st vs.												

cpt	-0.138 (-0.687 to 0.411)	**1.986 (1.627 to 2.345)**	NA	**2.234 (1.775 to 2.693)**	**7.32 (3.545 to 11.095)**	NA	NA	**4.948 (1.981 to 7.915)**	**1.408 (0.616 to 2.2)**	NA	ID	ID
su vs.												
cpt	NA	NA	0.448 (-0.119 to 1.016)	NA	**0.607 (0.034 to 1.181)**	NA	NA	NA	NA	NA	0.958 (0.057 to 16.243)	ID
pl	NA	NA	**2.236 (1.531 to 2.941)**	NA	**1.868 (1.206 to 2.53)**	NA	NA	NA	NA	NA	0.5 (0.042 to 5.889)	0.192 (0.009 to 4.209)
st	NA	**1.723 (1.193 to 2.254)**	NA	NA	NA	NA	NA	NA	NA	NA	ID	ID
sw vs.												
cpt	**3.774 (2.554 to 4.994)**	NA	**2.08 (1.18 to 2.979)**	NA	**2.597 (1.609 to 3.584)**	NA	NA	NA	NA	NA	NA	NA
oc	**0.864 (0.159 to 1.569)**	**6.24 (4.57 to 7.91)**	**1.273 (0.532 to 2.014)**	**0.951 (0.24 to 1.663)**	0 (-0.672 to 0.672)	NA	NA	NA	NA	NA	0.5 (0.081 to 3.103)	ID
pl	**2.495 (1.307 to 3.682)**	**2.964 (1.42 to 4.507)**	**1.245 (0.527 to 1.963)**	4.163 (-0.757 to 9.083)	4.365 (-2.117 to 10.847)	0.631 (-0.04 to 1.302)	NA	**6.449 (5.494 to 7.405)**	NA	NA	0.298 (0.028 to 3.146)	ID
us vs.												
cpt	0.324 (-0.025 to 0.673)	-0.109 (-0.547 to 0.328)	0.372 (-0.193 to 0.937)	0.452 (-0.115 to 1.02)	**0.713 (0.134 to 1.291)**	**0.947 (0.355 to 1.539)**	-0.303 (-0.989 to 0.383)	-0.415 (-0.858 to 0.029)	-0.221 (-0.661 to 0.219)	0.122 (-0.317 to 0.562)	2.042 (0.513 to 8.119)	ID
pl	NA	**3.250 (2.497 to 4.004)**	NA	NA	NA	NA	NA	NA	NA	NA	ID	NA

Notes: significant comparisons ($p<0.05$) are shown in bold; significant comparisons with placebo are marked in red; significant comparisons with conventional physiotherapy are marked in blue.

ID=insufficient data; NA=not applicable.

Supplementary Table 5. Network meta-analysis results of comparisons with significant outcomes

	Mean Change in Pain Score SMD (95% CI)	Mean Change in Function Score SMD (95% CI)	Mean Change in Passive Flexion SMD (95% CI)	Mean Change in Passive Abduction SMD (95% CI)	Mean Change in Passive ER SMD (95% CI)	Mean Change in Passive IR SMD (95% CI)	Mean Change in Active Flexion SMD (95% CI)	Mean Change in Active Abduction SMD (95% CI)	Mean Change in Active ER SMD (95% CI)	Mean Change in Active IR SMD (95% CI)
ac vs.										
ca	-1.20 (-3.42 to 1.01)	**-2.81 (-5.03 to -0.62)**	0.10 (-2.28 to 2.48)	0.38 (-2.13 to 2.89)	-0.01 (-2.51 to 2.49)	NA	NA	NA	NA	NA
cpt	0.77 (-0.05 to 1.61)	**0.91 (0.10 to 1.72)**	-0.50 (-1.93 to 0.94)	-0.90 (-2.41 to 0.63)	-0.23 (-1.72 to 1.24)	0.45 (-1.05 to 1.93)	0.68 (-0.53 to 1.88)	0.89 (-1.09 to 2.83)	0.55 (-0.88 to 1.99)	0.47 (-0.36 to 1.30)
cr	-0.96 (-3.18 to 1.29)	**-2.52 (-4.74 to -0.32)**	NA	NA	NA	NA	-1.69 (-3.42 to 0.02)	-1.35 (-4.14 to 1.41)	-1.27 (-3.32 to 0.79)	**-2.80 (-4.01 to -1.49)**
dh	-0.34 (-2.54 to 1.84)	-0.28 (-2.50 to 1.92)	-0.62 (-3.09 to 1.83)	**-2.53 (-5.08 to -0.02)**	**-2.78 (-5.31 to -0.24)**	NA	NA	NA	NA	NA
ds	-0.49 (-1.58 to 0.62)	-0.02 (-1.17 to 1.13)	-0.80 (-2.72 to 1.12)	**-2.68 (-4.51 to -0.85)**	-1.66 (-3.45 to 0.16)	0.32 (-1.53 to 2.20)	0.38 (-1.16 to 1.98)	-0.57 (-3.05 to 1.86)	0.44 (-1.35 to 2.29)	-0.20 (-1.46 to 1.13)
dt	**-1.58 (-3.07 to -0.09)**	-1.29 (-2.64 to 0.06)	-0.34 (-2.25 to 1.57)	-1.93 (-4.02 to 0.16)	-1.88 (-3.80 to 0.07)	NA	NA	NA	NA	NA
ls	**-1.92 (-3.33 to -0.51)**	-2.06 (-4.26 to 0.14)	-0.48 (-2.46 to 1.49)	-2.01 (-4.67 to 0.62)	-1.39 (-3.47 to 0.68)	-1.41 (-3.93 to 1.11)	-0.77 (-2.80 to 1.32)	-0.37 (-3.62 to 2.82)	1.62 (-0.77 to 4.02)	NA
mn	-0.25 (-1.20 to 0.72)	-0.66 (-1.67 to 0.36)	-0.69 (-2.38 to 0.99)	-1.09 (-2.78 to 0.59)	**-2.65 (-4.34 to -0.97)**	-0.19 (-1.84 to 1.47)	-0.29 (-1.88 to 1.36)	-1.76 (-4.11 to 0.61)	-0.23 (-2.08 to 1.65)	-0.33 (-1.71 to 1.10)
mrt	NA	-0.58 (-2.96 to 1.77)	-0.80 (-3.45 to 1.91)	-1.86 (-4.61 to 0.87)	**-4.10 (-6.77 to -1.44)**	1.02 (-1.70 to 3.70)	NA	NA	NA	NA
nb	0.53 (-0.76 to 1.82)	**4.78 (3.30 to 6.25)**	NA	-2.21 (-4.82 to 0.40)	-1.55 (-4.10 to 1.04)	NA	NA	NA	NA	NA
oc	0.57 (-0.66 to 1.81)	**2.11 (0.63 to 3.61)**	-0.76 (-2.84 to 1.32)	-1.99 (-4.17 to 0.20)	-0.54 (-2.46 to 1.40)	**2.60 (0.60 to 4.61)**	1.62 (-0.47 to 3.73)	0.31 (-2.93 to 3.53)	1.02 (-1.38 to 3.41)	NA
pl	**1.10 (0.23 to 1.99)**	**1.60 (0.70 to 2.50)**	0.63 (-0.82 to 2.08)	1.22 (-0.29 to 2.74)	0.52 (-0.95 to 2.00)	0.51 (-0.99 to 2.01)	0.80 (-0.92 to 2.54)	-0.43 (-3.00 to 2.17)	0.94 (-1.03 to 2.89)	0.50 (-1.19 to 2.28)

sc	-0.20 (-1.24 to 0.84)	-0.50 (-1.59 to 0.59)	**-1.84 (-3.48 to -0.20)**	**-2.55 (-4.24 to -0.87)**	**-2.20 (-3.85 to -0.53)**	0.99 (-1.07 to 3.05)	NA	NA	NA	NA
si	-0.58 (-1.47 to 0.34)	-0.56 (-1.51 to 0.38)	-0.75 (-2.36 to 0.86)	**-2.51 (-4.11 to -0.91)**	-1.54 (-3.10 to 0.04)	0.34 (-1.32 to 2.01)	0.62 (-0.89 to 2.19)	-0.24 (-2.67 to 2.17)	0.83 (-0.96 to 2.67)	0.04 (-1.16 to 1.28)
sm	NA	NA	-0.90 (-3.51 to 1.68)	-1.04 (-3.74 to 1.65)	**-2.79 (-5.42 to -0.18)**	0.76 (-1.78 to 3.33)	NA	NA	NA	NA
st	0.50 (-0.66 to 1.66)	-0.48 (-1.64 to 0.68)	-0.52 (-2.43 to 1.38)	-1.78 (-3.62 to 0.06)	**-4.71 (-6.43 to -3.01)**	1.02 (-0.97 to 2.99)	0.24 (-1.75 to 2.26)	**-3.23 (-5.43 to -1.02)**	0.22 (-1.77 to 2.25)	0.90 (-0.70 to 2.56)
sw	**-1.23 (-2.40 to -0.04)**	**-2.29 (-3.65 to -0.92)**	-1.69 (-3.54 to 0.13)	**-2.96 (-4.90 to -0.99)**	**-2.77 (-4.56 to -0.98)**	-0.11 (-2.55 to 2.28)	NA	**-6.83 (-10.04 to -3.61)**	NA	NA
us	**2.01 (0.83 to 3.20)**	**2.08 (0.89 to 3.26)**	-0.56 (-2.54 to 1.42)	-0.03 (-1.87 to 1.81)	0.29 (-1.54 to 2.12)	0.17 (-1.80 to 2.14)	1.04 (-0.39 to 2.48)	0.96 (-1.36 to 3.25)	0.93 (-0.76 to 2.63)	0.36 (-0.65 to 1.41)
ad vs.										
cr	NA	-2.69 (-5.74 to 0.35)	NA	NA	NA	NA	**-2.50 (-4.61 to -0.46)**	-2.59 (-5.82 to 0.63)	-2.14 (-4.57 to 0.28)	NA
dm	NA	-1.53 (-4.29 to 1.25)	NA	NA	NA	NA	-1.59 (-3.36 to 0.17)	**-2.96 (-5.75 to -0.18)**	**-2.11 (-4.15 to -0.04)**	NA
mn	NA	-0.83 (-3.09 to 1.45)	-0.03 (-2.43 to 2.36)	-0.11 (-2.51 to 2.30)	-1.73 (-4.11 to 0.64)	NA	-1.10 (-2.71 to 0.48)	**-3.01 (-5.42 to -0.58)**	-1.10 (-2.88 to 0.68)	NA
mrt	NA	-0.75 (-3.87 to 2.38)	-0.15 (-3.29 to 2.99)	-0.88 (-4.07 to 2.34)	**-3.19 (-6.30 to -0.07)**	NA	NA	NA	NA	NA
nb	NA	**4.61 (1.96 to 7.28)**	NA	-1.23 (-4.24 to 1.76)	-0.63 (-3.62 to 2.31)	NA	NA	NA	NA	NA
st	NA	-0.65 (-2.98 to 1.71)	0.13 (-2.41 to 2.65)	-0.80 (-3.32 to 1.71)	**-3.80 (-6.19 to -1.43)**	NA	-0.57 (-2.57 to 1.41)	**-4.47 (-7.10 to -1.84)**	-0.65 (-2.55 to 1.22)	NA
sw	NA	**-2.46 (-4.88 to -0.03)**	-1.04 (-3.52 to 1.43)	-1.98 (-4.59 to 0.63)	-1.85 (-4.35 to 0.59)	NA	NA	**-8.07 (-11.15 to -4.96)**	NA	NA
bc vs.										
ca	-1.52 (-4.47 to 1.43)	**-3.01 (-5.94 to -0.02)**	0.60 (-2.24 to 3.44)	1.44 (-1.55 to 4.42)	0.85 (-2.08 to 3.79)	NA	NA	NA	NA	NA

cpm	0.02 (-2.47 to 2.49)	0.10 (-2.37 to 2.59)	-0.68 (-3.00 to 1.64)	-0.27 (-2.74 to 2.21)	0.25 (-2.20 to 2.73)	NA	**-1.71 (-3.37 to -0.03)**	-0.97 (-3.71 to 1.79)	-0.22 (-2.21 to 1.78)	NA
cr	-1.28 (-4.18 to 1.64)	-2.72 (-5.62 to 0.20)	NA	NA	NA	NA	**-2.45 (-4.17 to -0.76)**	-2.11 (-4.86 to 0.65)	-1.28 (-3.29 to 0.75)	NA
mn	-0.57 (-2.71 to 1.56)	-0.85 (-3.01 to 1.33)	-0.18 (-2.31 to 1.95)	-0.04 (-2.23 to 2.18)	-1.79 (-3.98 to 0.43)	NA	-1.05 (-2.64 to 0.56)	**-2.52 (-4.85 to -0.17)**	-0.24 (-2.08 to 1.58)	NA
mrt	NA	-0.78 (-3.79 to 2.26)	-0.29 (-3.30 to 2.68)	-0.81 (-3.87 to 2.28)	**-3.24 (-6.24 to -0.29)**	NA	NA	NA	NA	NA
nb	0.21 (-2.17 to 2.61)	**4.59 (2.06 to 7.11)**	NA	-1.15 (-4.13 to 1.82)	-0.68 (-3.65 to 2.31)	NA	NA	NA	NA	NA
pl	0.78 (-1.36 to 2.91)	1.41 (-0.73 to 3.56)	1.14 (-0.98 to 3.25)	**2.28 (0.09 to 4.48)**	1.38 (-0.73 to 3.51)	NA	0.04 (-1.67 to 1.77)	-1.18 (-3.70 to 1.36)	0.92 (-1.01 to 2.84)	NA
st	0.18 (-2.03 to 2.39)	-0.67 (-2.88 to 1.54)	-0.02 (-2.35 to 2.30)	-0.72 (-3.03 to 1.60)	**-3.85 (-6.05 to -1.64)**	NA	-0.52 (-2.54 to 1.49)	**-3.99 (-6.16 to -1.80)**	0.20 (-1.79 to 2.20)	NA
sw	-1.55 (-3.81 to 0.71)	**-2.48 (-4.82 to -0.12)**	-1.19 (-3.49 to 1.11)	-1.90 (-4.42 to 0.62)	-1.91 (-4.22 to 0.44)	NA	NA	**-7.58 (-10.74 to -4.41)**	NA	NA
ca vs.										
cpm	1.53 (-1.00 to 4.11)	**3.10 (0.55 to 5.64)**	-1.28 (-3.79 to 1.20)	-1.71 (-4.29 to 0.89)	-0.60 (-3.14 to 1.95)	NA	NA	NA	NA	NA
cpt	1.97 (-0.16 to 4.09)	**3.72 (1.59 to 5.85)**	-0.59 (-2.71 to 1.49)	-1.28 (-3.44 to 0.88)	-0.22 (-2.34 to 1.89)	NA	NA	NA	NA	NA
ds	0.70 (-1.48 to 2.90)	**2.79 (0.59 to 5.01)**	-0.90 (-3.26 to 1.47)	**-3.05 (-5.40 to -0.70)**	-1.65 (-3.97 to 0.66)	NA	NA	NA	NA	NA
hy	1.53 (-1.01 to 4.09)	**3.06 (0.73 to 5.39)**	-0.54 (-3.01 to 1.91)	-1.32 (-3.78 to 1.13)	-0.96 (-3.30 to 1.36)	NA	NA	NA	NA	NA
mn	0.95 (-1.19 to 3.10)	2.16 (-0.03 to 4.34)	-0.78 (-3.02 to 1.43)	-1.47 (-3.71 to 0.77)	**-2.64 (-4.87 to -0.41)**	NA	NA	NA	NA	NA
mrt	NA	2.23 (-0.84 to 5.28)	-0.89 (-3.97 to 2.18)	-2.24 (-5.36 to 0.88)	**-4.09 (-7.13 to -1.05)**	NA	NA	NA	NA	NA
nn	0.93 (-1.46 to 3.35)	**4.08 (1.61 to 6.55)**	-0.46 (-3.29 to 2.39)	-2.08 (-4.80 to 0.62)	-1.39 (-4.10 to 1.30)	NA	NA	NA	NA	NA

nb	1.73 (-0.66 to 4.17)	**7.59 (5.04 to 10.16)**	NA	-2.59 (-5.60 to 0.38)	-1.54 (-4.54 to 1.44)	NA	NA	NA	NA	NA
nc	1.31 (-1.13 to 3.76)	**3.23 (0.62 to 5.89)**	-0.78 (-3.63 to 2.06)	-2.08 (-4.79 to 0.65)	-1.53 (-4.22 to 1.16)	NA	NA	NA	NA	NA
oc	1.76 (-0.47 to 4.00)	**4.92 (2.55 to 7.30)**	-0.86 (-3.35 to 1.61)	-2.37 (-4.96 to 0.23)	-0.53 (-2.96 to 1.87)	NA	NA	NA	NA	NA
pl	**2.30 (0.29 to 4.33)**	**4.41 (2.40 to 6.42)**	0.54 (-1.36 to 2.41)	0.84 (-1.15 to 2.85)	0.53 (-1.48 to 2.51)	NA	NA	NA	NA	NA
sc	0.99 (-1.18 to 3.18)	**2.31 (0.11 to 4.52)**	-1.94 (-4.12 to 0.23)	**-2.93 (-5.19 to -0.68)**	-2.19 (-4.41 to 0.02)	NA	NA	NA	NA	NA
si	0.61 (-1.51 to 2.74)	**2.25 (0.14 to 4.37)**	-0.84 (-2.98 to 1.28)	**-2.89 (-5.04 to -0.71)**	-1.53 (-3.67 to 0.59)	NA	NA	NA	NA	NA
st	1.70 (-0.55 to 3.98)	**2.33 (0.06 to 4.58)**	-0.62 (-3.02 to 1.78)	-2.16 (-4.53 to 0.21)	**-4.70 (-6.97 to -2.45)**	NA	NA	NA	NA	NA
sw	-0.04 (-2.25 to 2.20)	0.52 (-1.76 to 2.83)	-1.79 (-4.09 to 0.48)	**-3.34 (-5.71 to -0.97)**	**-2.76 (-5.05 to -0.49)**	NA	NA	NA	NA	NA
us	**3.21 (0.92 to 5.47)**	**4.89 (2.65 to 7.15)**	-0.65 (-3.13 to 1.79)	-0.41 (-2.76 to 1.94)	0.30 (-2.03 to 2.65)	NA	NA	NA	NA	NA
cpm vs.										
cpt	0.43 (-0.99 to 1.87)	0.61 (-0.80 to 2.03)	0.68 (-0.64 to 2.03)	0.43 (-0.99 to 1.86)	0.38 (-1.05 to 1.82)	0.43 (-0.89 to 1.76)	**1.63 (0.44 to 2.81)**	1.10 (-0.84 to 3.04)	0.75 (-0.67 to 2.18)	0.73 (-0.11 to 1.56)
cr	-1.29 (-3.81 to 1.21)	**-2.82 (-5.34 to -0.32)**	NA	NA	NA	NA	-0.74 (-2.49 to 0.98)	-1.13 (-3.91 to 1.65)	-1.07 (-3.11 to 0.99)	**-2.53 (-3.74 to -1.27)**
hy	-0.00 (-2.05 to 2.05)	-0.04 (-1.85 to 1.77)	0.73 (-1.20 to 2.67)	0.39 (-1.55 to 2.33)	-0.36 (-2.20 to 1.46)	0.80 (-1.14 to 2.73)	1.62 (-0.02 to 3.26)	1.10 (-1.67 to 3.84)	0.76 (-1.22 to 2.76)	**1.29 (0.15 to 2.40)**
mn	-0.59 (-2.16 to 1.00)	-0.95 (-2.56 to 0.67)	0.50 (-1.15 to 2.15)	0.23 (-1.45 to 1.91)	**-2.04 (-3.75 to -0.33)**	-0.21 (-1.88 to 1.46)	0.66 (-0.94 to 2.25)	-1.54 (-3.89 to 0.82)	-0.03 (-1.87 to 1.83)	-0.06 (-1.45 to 1.33)
mrt	NA	-0.87 (-3.52 to 1.75)	0.38 (-2.28 to 3.07)	-0.54 (-3.25 to 2.20)	**-3.49 (-6.15 to -0.88)**	1.00 (-1.70 to 3.70)	NA	NA	NA	NA
nb	0.20 (-1.68 to 2.08)	**4.49 (2.42 to 6.55)**	NA	-0.88 (-3.47 to 1.77)	-0.94 (-3.56 to 1.66)	NA	NA	NA	NA	NA

oc	0.23 (-1.53 to 2.02)	1.82 (-0.15 to 3.79)	0.42 (-1.67 to 2.53)	-0.66 (-2.89 to 1.56)	0.07 (-1.87 to 2.02)	**2.58 (0.55 to 4.61)**	**2.57 (0.49 to 4.65)**	0.52 (-2.69 to 3.74)	1.22 (-1.18 to 3.61)	NA
pl	0.76 (-0.80 to 2.34)	1.31 (-0.27 to 2.88)	**1.81 (0.19 to 3.43)**	2.55 (0.87 to 4.22)	1.13 (-0.46 to 2.72)	0.49 (-1.40 to 2.40)	**1.75 (0.05 to 3.47)**	-0.21 (-2.77 to 2.36)	1.14 (-0.82 to 3.09)	0.76 (-0.91 to 2.52)
si	-0.92 (-2.45 to 0.64)	-0.85 (-2.39 to 0.70)	0.44 (-1.16 to 2.03)	-1.18 (-2.77 to 0.44)	-0.93 (-2.52 to 0.66)	0.32 (-1.34 to 2.03)	**1.57 (0.06 to 3.12)**	-0.03 (-2.43 to 2.38)	1.03 (-0.77 to 2.84)	0.30 (-0.90 to 1.52)
st	0.16 (-1.51 to 1.85)	-0.77 (-2.45 to 0.91)	0.66 (-1.25 to 2.57)	-0.45 (-2.26 to 1.36)	**-4.11 (-5.81 to -2.41)**	1.00 (-0.95 to 2.97)	1.19 (-0.79 to 3.17)	**-3.01 (-5.21 to -0.82)**	0.42 (-1.58 to 2.45)	1.17 (-0.43 to 2.79)
sw	-1.57 (-3.28 to 0.16)	**-2.58 (-4.43 to -0.74)**	-0.51 (-2.37 to 1.34)	-1.63 (-3.70 to 0.43)	**-2.16 (-3.99 to -0.33)**	-0.13 (-2.80 to 2.54)	NA	**-6.61 (-9.77 to -3.41)**	NA	NA
us	1.68 (-0.01 to 3.39)	**1.78 (0.09 to 3.48)**	0.63 (-1.31 to 2.57)	1.30 (-0.58 to 3.16)	0.90 (-0.96 to 2.75)	0.15 (-1.77 to 2.09)	**1.99 (0.58 to 3.41)**	1.18 (-1.10 to 3.47)	1.13 (-0.56 to 2.82)	0.62 (-0.39 to 1.64)
cpt vs.										
cr	-1.73 (-3.81 to 0.37)	**-3.43 (-5.49 to -1.38)**	NA	NA	NA	NA	**-2.37 (-3.61 to -1.15)**	**-2.23 (-4.20 to -0.27)**	**-1.82 (-3.28 to -0.34)**	**-3.27 (-4.15 to -2.31)**
dc	**-2.44 (-4.80 to -0.06)**	**-2.30 (-4.60 to -0.01)**	NA	NA	NA	-0.11 (-2.23 to 2.03)	NA	NA	NA	NA
dh	-1.11 (-3.17 to 0.95)	-1.19 (-3.30 to 0.89)	-0.13 (-2.20 to 1.94)	-1.63 (-3.76 to 0.46)	**-2.55 (-4.66 to -0.42)**	NA	NA	NA	NA	NA
dm	**-2.53 (-4.27 to -0.80)**	**-2.26 (-4.02 to -0.52)**	NA	NA	NA	NA	**-1.45 (-2.63 to -0.26)**	**-2.60 (-4.38 to -0.80)**	**-1.78 (-3.16 to -0.38)**	NA
ds	**-1.26 (-2.10 to -0.42)**	**-0.93 (-1.83 to -0.03)**	-0.30 (-1.69 to 1.08)	-1.78 (-2.92 to -0.64)	**-1.43 (-2.54 to -0.31)**	-0.13 (-1.44 to 1.20)	-0.30 (-1.28 to 0.74)	-1.46 (-2.93 to 0.00)	-0.11 (-1.23 to 1.04)	-0.67 (-1.63 to 0.36)
dt	**-2.35 (-3.66 to -1.03)**	**-2.20 (-3.34 to -1.04)**	0.16 (-1.23 to 1.54)	-1.04 (-2.57 to 0.48)	**-1.65 (-2.97 to -0.34)**	NA	NA	NA	NA	NA
ls	**-2.69 (-3.92 to -1.46)**	**-2.96 (-5.09 to -0.85)**	0.02 (-1.52 to 1.53)	-1.12 (-3.32 to 1.08)	-1.16 (-2.73 to 0.39)	-1.86 (-3.98 to 0.29)	-1.45 (-3.12 to 0.27)	-1.26 (-3.78 to 1.29)	1.07 (-0.85 to 3.01)	NA
mn	**-1.02 (-1.66 to -0.38)**	**-1.56 (-2.33 to -0.80)**	-0.19 (-1.14 to 0.76)	-0.20 (-1.07 to 0.69)	**-2.42 (-3.33 to -1.51)**	-0.64 (-1.67 to 0.40)	-0.97 (-2.03 to 0.12)	**-2.65 (-3.96 to -1.33)**	-0.78 (-1.97 to 0.40)	-0.80 (-1.93 to 0.36)
mrt	NA	-1.49 (-3.73 to 0.73)	-0.30 (-2.60 to 2.03)	-0.97 (-3.27 to 1.34)	**-3.87 (-6.13 to -1.67)**	0.57 (-1.80 to 2.92)	NA	NA	NA	NA

nb	-0.24 (-1.47 to 0.99)	**3.87 (2.37 to 5.36)**	NA	-1.31 (-3.50 to 0.88)	-1.32 (-3.50 to 0.85)	NA	NA	NA	NA	NA
oc	-0.20 (-1.24 to 0.84)	1.20 (-0.13 to 2.55)	-0.26 (-1.86 to 1.33)	-1.09 (-2.83 to 0.61)	-0.31 (-1.63 to 1.00)	**2.15 (0.61 to 3.70)**	0.94 (-0.78 to 2.67)	-0.58 (-3.14 to 1.99)	0.47 (-1.47 to 2.40)	NA
pl	0.33 (-0.30 to 0.97)	**0.69 (0.03 to 1.36)**	**1.13 (0.22 to 2.05)**	2.12 (1.26 to 2.98)	**0.75 (0.06 to 1.42)**	0.06 (-1.31 to 1.42)	0.12 (-1.11 to 1.39)	-1.31 (-2.97 to 0.35)	0.38 (-0.97 to 1.71)	0.03 (-1.41 to 1.60)
sc	**-0.97 (-1.68 to -0.27)**	**-1.41 (-2.21 to -0.60)**	**-1.34 (-2.27 to -0.43)**	-1.65 (-2.55 to -0.76)	**-1.97 (-2.79 to -1.15)**	0.53 (-0.96 to 2.03)	NA	NA	NA	NA
si	**-1.35 (-1.91 to -0.79)**	**-1.47 (-2.08 to -0.85)**	-0.25 (-1.13 to 0.64)	-1.61 (-2.35 to -0.87)	**-1.31 (-2.00 to -0.63)**	-0.11 (-1.16 to 0.96)	-0.06 (-1.00 to 0.93)	-1.13 (-2.55 to 0.29)	0.28 (-0.83 to 1.40)	-0.43 (-1.32 to 0.49)
st	-0.27 (-1.13 to 0.60)	**-1.39 (-2.27 to -0.51)**	-0.03 (-1.37 to 1.31)	-0.88 (-1.99 to 0.21)	**-4.49 (-5.38 to -3.59)**	0.57 (-0.88 to 2.01)	-0.43 (-2.05 to 1.17)	**-4.11 (-5.13 to -3.10)**	-0.33 (-1.75 to 1.10)	0.43 (-0.95 to 1.84)
su	NA	**-3.08 (-5.26 to -0.90)**	-0.81 (-2.50 to 0.92)	NA	-0.88 (-2.65 to 0.89)	NA	NA	NA	NA	NA
sw	**-2.00 (-2.96 to -1.04)**	**-3.19 (-4.39 to -2.00)**	-1.20 (-2.49 to 0.10)	-2.06 (-3.55 to -0.57)	**-2.54 (-3.69 to -1.39)**	-0.56 (-2.87 to 1.74)	NA	**-7.71 (-10.23 to -5.18)**	NA	NA
us	**1.24 (0.33 to 2.15)**	**1.17 (0.26 to 2.08)**	-0.06 (-1.47 to 1.35)	0.86 (-0.33 to 2.05)	0.52 (-0.65 to 1.70)	-0.28 (-1.69 to 1.12)	0.36 (-0.40 to 1.12)	0.07 (-1.15 to 1.29)	0.38 (-0.53 to 1.29)	-0.11 (-0.72 to 0.50)
cr vs.										
ds	0.47 (-1.78 to 2.70)	**2.50 (0.26 to 4.76)**	NA	NA	NA	NA	**2.07 (0.52 to 3.71)**	0.78 (-1.68 to 3.22)	1.71 (-0.16 to 3.60)	**2.60 (1.20 to 3.97)**
hy	1.29 (-1.22 to 3.78)	**2.77 (0.43 to 5.13)**	NA	NA	NA	NA	**2.36 (0.71 to 4.05)**	2.23 (-0.54 to 4.98)	1.82 (-0.21 to 3.84)	**3.82 (2.60 to 4.98)**
ls	-0.96 (-3.38 to 1.45)	0.47 (-2.48 to 3.43)	NA	NA	NA	NA	0.92 (-1.16 to 3.05)	0.98 (-2.23 to 4.20)	**2.89 (0.45 to 5.29)**	NA
mn	0.71 (-1.48 to 2.88)	1.87 (-0.33 to 4.06)	NA	NA	NA	NA	1.40 (-0.22 to 3.08)	-0.41 (-2.78 to 1.96)	1.04 (-0.87 to 2.93)	**2.47 (0.94 to 3.94)**
nn	0.69 (-1.76 to 3.13)	**3.79 (1.30 to 6.27)**	NA	NA	NA	NA	NA	NA	NA	NA
nb	1.49 (-0.94 to 3.88)	**7.30 (4.78 to 9.82)**	NA	NA	NA	NA	NA	NA	NA	NA

nc	1.07 (-1.40 to 3.51)	**2.94 (0.30 to 5.58)**	NA	NA	NA	NA	NA	NA	NA	NA
oc	1.53 (-0.83 to 3.86)	**4.63 (2.15 to 7.09)**	NA	NA	NA	NA	**3.31 (1.22 to 5.46)**	1.66 (-1.58 to 4.91)	2.28 (-0.18 to 4.70)	NA
pl	2.06 (-0.13 to 4.23)	**4.12 (1.95 to 6.28)**	NA	NA	NA	NA	**2.49 (0.76 to 4.28)**	0.92 (-1.64 to 3.50)	**2.20 (0.17 to 4.19)**	**3.29 (1.62 to 5.10)**
prp	0.72 (-2.05 to 3.51)	2.32 (-0.46 to 5.04)	NA	NA	NA	NA	1.52 (-0.18 to 3.28)	0.76 (-2.04 to 3.54)	1.47 (-0.60 to 3.54)	**2.27 (0.94 to 3.60)**
si	0.37 (-1.79 to 2.52)	1.96 (-0.20 to 4.11)	NA	NA	NA	NA	**2.31 (0.78 to 3.90)**	1.11 (-1.34 to 3.53)	**2.09 (0.22 to 3.95)**	**2.83 (1.50 to 4.12)**
sn	1.42 (-1.48 to 4.29)	**3.11 (0.25 to 5.94)**	NA	NA	NA	NA	NA	NA	NA	NA
st	1.46 (-0.80 to 3.70)	2.05 (-0.20 to 4.30)	NA	NA	NA	NA	1.93 (-0.07 to 3.99)	-1.88 (-4.09 to 0.32)	1.49 (-0.56 to 3.55)	**3.70 (2.00 to 5.37)**
sw	-0.28 (-2.57 to 2.01)	0.24 (-2.16 to 2.61)	NA	NA	NA	NA	NA	**-5.48 (-8.66 to -2.24)**	NA	NA
us	**2.97 (0.68 to 5.21)**	**4.60 (2.33 to 6.85)**	NA	NA	NA	NA	**2.73 (1.29 to 4.20)**	2.31 (-0.02 to 4.62)	**2.20 (0.46 to 3.93)**	**3.16 (2.02 to 4.27)**
dc vs.										
nn	1.40 (-1.18 to 3.99)	**2.66 (0.09 to 5.23)**	NA	NA	NA	1.94 (-1.69 to 5.55)	NA	NA	NA	NA
nb	2.20 (-0.41 to 4.80)	**6.17 (3.43 to 8.90)**	NA	NA	NA	NA	NA	NA	NA	NA
oc	2.24 (-0.29 to 4.78)	**3.50 (0.97 to 6.06)**	NA	NA	NA	2.26 (-0.07 to 4.62)	NA	NA	NA	NA
pl	**2.77 (0.37 to 5.15)**	**2.99 (0.69 to 5.29)**	NA	NA	NA	0.17 (-2.12 to 2.46)	NA	NA	NA	NA
us	**3.68 (1.19 to 6.17)**	**3.47 (1.04 to 5.87)**	NA	NA	NA	-0.17 (-2.49 to 2.13)	NA	NA	NA	NA
dh vs.										

nb	0.87 (-1.49 to 3.22)	**5.06 (2.52 to 7.62)**	NA	0.32 (-2.56 to 3.19)	1.23 (-1.66 to 4.11)	NA	NA	NA	NA	NA
oc	0.91 (-1.33 to 3.15)	**2.39 (0.03 to 4.77)**	-0.14 (-2.56 to 2.29)	0.54 (-2.01 to 3.09)	2.24 (-0.15 to 4.62)	NA	NA	NA	NA	NA
pl	1.44 (-0.65 to 3.53)	1.88 (-0.20 to 3.98)	1.25 (-0.88 to 3.39)	**3.75 (1.60 to 5.92)**	3.30 (1.14 to 5.42)	NA	NA	NA	NA	NA
us	**2.35 (0.16 to 4.56)**	**2.36 (0.15 to 4.60)**	0.07 (-2.29 to 2.41)	**2.50 (0.22 to 4.80)**	**3.07 (0.74 to 5.35)**	NA	NA	NA	NA	NA
dm vs.										
ds	1.27 (-0.50 to 3.05)	1.34 (-0.45 to 3.12)	NA	NA	NA	NA	**1.16 (0.09 to 2.28)**	1.14 (-0.65 to 2.92)	**1.68 (0.40 to 2.97)**	NA
ls	-0.16 (-2.25 to 1.94)	-0.70 (-3.41 to 1.99)	NA	NA	NA	NA	0.00 (-1.74 to 1.78)	1.34 (-1.44 to 4.12)	**2.85 (0.82 to 4.85)**	NA
nn	1.49 (-0.65 to 3.59)	**2.63 (0.43 to 4.81)**	NA	NA	NA	NA	NA	NA	NA	NA
nb	**2.29 (0.18 to 4.40)**	**6.14 (3.85 to 8.43)**	NA	NA	NA	NA	NA	NA	NA	NA
oc	**2.33 (0.37 to 4.31)**	**3.47 (1.33 to 5.63)**	NA	NA	NA	NA	**2.40 (0.60 to 4.18)**	2.02 (-0.76 to 4.86)	**2.25 (0.20 to 4.29)**	NA
pl	**2.86 (1.08 to 4.65)**	**2.96 (1.17 to 4.76)**	NA	NA	NA	NA	**1.58 (0.23 to 2.93)**	1.29 (-0.72 to 3.30)	**2.17 (0.70 to 3.62)**	NA
si	1.17 (-0.59 to 2.93)	0.80 (-0.97 to 2.58)	NA	NA	NA	NA	**1.40 (0.29 to 2.54)**	1.47 (-0.38 to 3.33)	**2.06 (0.74 to 3.38)**	NA
st	**2.26 (0.36 to 4.16)**	0.88 (-1.02 to 2.81)	NA	NA	NA	NA	1.02 (-0.60 to 2.66)	-1.52 (-3.45 to 0.42)	1.45 (-0.09 to 2.99)	NA
sw	0.52 (-1.39 to 2.46)	-0.93 (-2.96 to 1.11)	NA	NA	NA	NA	NA	**-5.11 (-7.87 to -2.34)**	NA	NA
us	**3.77 (1.84 to 5.68)**	**3.43 (1.49 to 5.38)**	NA	NA	NA	NA	**1.81 (0.56 to 3.08)**	**2.67 (0.68 to 4.70)**	**2.16 (0.65 to 3.64)**	NA
ds vs.										

hy	0.82 (-0.79 to 2.44)	0.27 (-1.07 to 1.60)	0.35 (-1.41 to 2.12)	**1.73 (0.07 to 3.39)**	0.68 (-0.78 to 2.15)	0.50 (-1.20 to 2.19)	0.29 (-1.26 to 1.79)	1.45 (-0.96 to 3.87)	0.12 (-1.70 to 1.89)	1.22 (-0.08 to 2.42)
ls	**-1.43 (-2.85 to -0.01)**	-2.04 (-4.26 to 0.19)	0.32 (-1.64 to 2.28)	0.66 (-1.79 to 3.12)	0.27 (-1.58 to 2.13)	-1.73 (-4.16 to 0.69)	-1.15 (-2.60 to 0.27)	0.20 (-2.11 to 2.53)	1.18 (-0.51 to 2.82)	NA
mn	0.24 (-0.70 to 1.18)	-0.64 (-1.67 to 0.40)	0.11 (-1.52 to 1.75)	**1.58 (0.20 to 2.97)**	-0.99 (-2.35 to 0.38)	-0.51 (-2.05 to 1.02)	-0.67 (-1.58 to 0.20)	-1.19 (-2.46 to 0.11)	-0.67 (-1.54 to 0.20)	-0.13 (-0.93 to 0.66)
mrt	NA	-0.56 (-2.96 to 1.80)	0.00 (-2.62 to 2.64)	0.81 (-1.73 to 3.36)	**-2.45 (-4.93 to -0.01)**	0.70 (-1.93 to 3.33)	NA	NA	NA	NA
nb	1.03 (-0.39 to 2.44)	**4.80 (3.08 to 6.50)**	NA	0.47 (-1.84 to 2.76)	0.11 (-2.17 to 2.38)	NA	NA	NA	NA	NA
oc	1.06 (-0.16 to 2.27)	**2.13 (0.66 to 3.59)**	0.04 (-1.80 to 1.88)	0.69 (-1.19 to 2.54)	1.12 (-0.49 to 2.69)	**2.28 (0.54 to 4.00)**	1.24 (-0.26 to 2.69)	0.88 (-1.45 to 3.23)	0.58 (-1.12 to 2.24)	NA
pl	**1.59 (0.70 to 2.49)**	**1.62 (0.69 to 2.55)**	1.43 (-0.02 to 2.90)	**3.90 (2.63 to 5.13)**	**2.17 (0.99 to 3.33)**	0.19 (-1.46 to 1.82)	0.42 (-0.48 to 1.26)	0.15 (-1.16 to 1.45)	0.49 (-0.45 to 1.40)	0.69 (-0.54 to 1.98)
st	0.99 (-0.17 to 2.14)	-0.46 (-1.67 to 0.74)	0.28 (-1.56 to 2.10)	0.89 (-0.66 to 2.45)	**-3.06 (-4.44 to -1.68)**	0.70 (-1.17 to 2.54)	-0.14 (-1.66 to 1.33)	**-2.66 (-4.27 to -1.03)**	-0.22 (-1.29 to 0.83)	1.10 (-0.06 to 2.24)
sw	-0.74 (-1.91 to 0.43)	**-2.27 (-3.62 to -0.91)**	-0.89 (-2.65 to 0.86)	-0.28 (-2.00 to 1.42)	-1.11 (-2.61 to 0.39)	-0.43 (-2.91 to 2.04)	NA	**-6.25 (-8.58 to -3.95)**	NA	NA
us	**2.51 (1.34 to 3.66)**	**2.10 (0.89 to 3.29)**	0.24 (-1.51 to 2.00)	**2.64 (1.18 to 4.10)**	**1.95 (0.48 to 3.42)**	-0.15 (-1.83 to 1.50)	0.65 (-0.35 to 1.61)	1.53 (-0.07 to 3.15)	0.49 (-0.68 to 1.64)	0.56 (-0.26 to 1.34)
dt vs.										
hy	**1.91 (0.02 to 3.79)**	**1.54 (0.04 to 3.02)**	-0.11 (-1.89 to 1.64)	0.99 (-0.95 to 2.93)	0.91 (-0.71 to 2.52)	NA	NA	NA	NA	NA
mt	**2.49 (0.05 to 4.91)**	NA	0.14 (-2.24 to 2.48)	1.39 (-1.15 to 3.94)	1.82 (-0.60 to 4.26)	NA	NA	NA	NA	NA
nn	1.32 (-0.38 to 2.98)	**2.56 (0.92 to 4.21)**	-0.03 (-2.19 to 2.12)	0.23 (-1.91 to 2.36)	0.48 (-1.52 to 2.45)	NA	NA	NA	NA	NA
nb	**2.11 (0.39 to 3.83)**	**6.07 (4.19 to 7.93)**	NA	-0.28 (-2.74 to 2.19)	0.34 (-2.04 to 2.70)	NA	NA	NA	NA	NA
nc	**1.70 (0.01 to 3.40)**	1.71 (-0.21 to 3.62)	-0.35 (-2.68 to 1.99)	0.23 (-1.95 to 2.42)	0.34 (-1.66 to 2.33)	NA	NA	NA	NA	NA

oc	**2.15 (0.55 to 3.74)**	**3.40 (1.79 to 5.02)**	-0.42 (-2.28 to 1.42)	-0.05 (-2.20 to 2.07)	1.35 (-0.39 to 3.06)	NA	NA	NA	NA	NA
pl	**2.68 (1.32 to 4.05)**	**2.89 (1.71 to 4.06)**	0.97 (-0.50 to 2.44)	**3.15 (1.56 to 4.75)**	**2.40 (1.05 to 3.75)**	NA	NA	NA	NA	NA
st	**2.08 (0.55 to 3.62)**	0.81 (-0.55 to 2.18)	-0.19 (-2.04 to 1.64)	0.15 (-1.71 to 2.02)	**-2.83 (-4.38 to -1.29)**	NA	NA	NA	NA	NA
us	**3.59 (2.07 to 5.10)**	**3.37 (1.98 to 4.74)**	-0.22 (-1.97 to 1.53)	**1.90 (0.13 to 3.66)**	**2.17 (0.57 to 3.78)**	NA	NA	NA	NA	NA
ht vs.									NA	
mrt	NA	-0.86 (-4.09 to 2.38)	-0.31 (-3.61 to 3.00)	-1.08 (-4.43 to 2.25)	**-3.29 (-6.54 to -0.06)**	0.25 (-3.06 to 3.52)	NA	NA	NA	NA
nb	0.42 (-2.36 to 3.23)	**4.50 (1.71 to 7.28)**	NA	-1.42 (-4.69 to 1.82)	-0.73 (-3.86 to 2.41)	NA	NA	NA	NA	NA
hy vs.										
ls	**-2.25 (-4.13 to -0.37)**	-2.31 (-4.64 to 0.04)	-0.03 (-2.08 to 1.99)	-1.07 (-3.61 to 1.47)	-0.41 (-2.29 to 1.44)	-2.23 (-4.71 to 0.26)	-1.45 (-3.47 to 0.63)	-1.25 (-4.43 to 1.94)	1.06 (-1.30 to 3.44)	NA
mn	-0.58 (-2.15 to 0.97)	-0.91 (-2.19 to 0.37)	-0.24 (-1.91 to 1.45)	-0.15 (-1.68 to 1.39)	-1.67 (-3.08 to -0.28)	-1.01 (-2.67 to 0.63)	-0.96 (-2.52 to 0.61)	**-2.64 (-4.97 to -0.31)**	-0.78 (-2.61 to 1.06)	-1.35 (-2.69 to 0.04)
nb	0.20 (-1.68 to 2.06)	**4.53 (2.68 to 6.37)**	NA	-1.27 (-3.78 to 1.21)	-0.57 (-2.94 to 1.78)	NA	NA	NA	NA	NA
oc	0.24 (-1.50 to 1.98)	**1.86 (0.20 to 3.51)**	-0.31 (-2.30 to 1.66)	-1.05 (-3.13 to 1.04)	0.44 (-1.22 to 2.07)	1.78 (-0.15 to 3.68)	0.95 (-1.10 to 3.02)	-0.57 (-3.79 to 2.68)	0.46 (-1.93 to 2.83)	NA
pl	0.77 (-0.77 to 2.29)	**1.35 (0.18 to 2.53)**	1.08 (-0.50 to 2.68)	2.16 (0.75 to 3.58)	**1.49 (0.28 to 2.68)**	-0.30 (-2.11 to 1.48)	0.13 (-1.56 to 1.81)	-1.30 (-3.84 to 1.26)	0.38 (-1.56 to 2.30)	-0.53 (-2.13 to 1.27)
st	0.17 (-1.51 to 1.83)	-0.73 (-2.13 to 0.67)	-0.08 (-1.97 to 1.82)	-0.84 (-2.51 to 0.85)	**-3.74 (-5.15 to -2.34)**	0.20 (-1.77 to 2.13)	-0.43 (-2.42 to 1.53)	**-4.11 (-6.29 to -1.91)**	-0.34 (-2.33 to 1.67)	-0.12 (-1.68 to 1.52)
sw	-1.57 (-3.28 to 0.14)	**-2.54 (-4.08 to -0.98)**	-1.24 (-3.09 to 0.60)	-2.02 (-3.88 to -0.15)	**-1.79 (-3.33 to -0.27)**	-0.93 (-3.52 to 1.66)	NA	**-7.70 (-10.88 to -4.54)**	NA	NA
us	**1.68 (0.00 to 3.36)**	**1.83 (0.44 to 3.21)**	-0.11 (-1.98 to 1.80)	0.91 (-0.78 to 2.60)	1.27 (-0.27 to 2.78)	-0.65 (-2.46 to 1.19)	0.36 (-1.01 to 1.72)	0.08 (-2.21 to 2.40)	0.37 (-1.30 to 2.04)	-0.66 (-1.60 to 0.34)

ls vs.										
mn	**1.67 (0.36 to 2.99)**	1.40 (-0.77 to 3.60)	-0.20 (-1.68 to 1.27)	0.92 (-1.12 to 2.95)	-1.26 (-2.78 to 0.25)	1.22 (-0.67 to 3.09)	0.48 (-1.13 to 2.06)	-1.39 (-3.76 to 0.96)	**-1.85 (-3.55 to -0.13)**	NA
mrt	NA	1.47 (-1.55 to 4.53)	-0.32 (-2.93 to 2.30)	0.15 (-2.91 to 3.21)	**-2.71 (-5.36 to -0.10)**	2.43 (-0.50 to 5.32)	NA	NA	NA	NA
mt	**2.83 (0.46 to 5.20)**	NA	0.28 (-2.14 to 2.72)	1.47 (-1.56 to 4.43)	1.33 (-1.23 to 3.89)	1.77 (-1.05 to 4.59)	NA	NA	NA	NA
nn	1.65 (-0.06 to 3.37)	**3.33 (0.86 to 5.82)**	0.11 (-2.38 to 2.61)	0.31 (-2.51 to 3.11)	-0.01 (-2.31 to 2.28)	**3.68 (0.12 to 7.27)**	NA	NA	NA	NA
nb	**2.45 (0.76 to 4.15)**	**6.84 (4.27 to 9.41)**	NA	-0.19 (-3.29 to 2.87)	-0.16 (-2.78 to 2.47)	NA	NA	NA	NA	NA
nc	**2.03 (0.31 to 3.78)**	2.47 (-0.14 to 5.12)	-0.20 (-2.69 to 2.30)	0.31 (-2.50 to 3.10)	-0.15 (-2.46 to 2.13)	**3.23 (0.14 to 6.31)**	NA	NA	NA	NA
oc	**2.49 (1.00 to 3.99)**	**4.17 (1.79 to 6.53)**	-0.28 (-2.38 to 1.84)	0.03 (-2.73 to 2.74)	0.85 (-1.05 to 2.73)	**4.01 (1.63 to 6.38)**	**2.39 (0.75 to 4.02)**	0.68 (-2.06 to 3.42)	-0.60 (-2.56 to 1.38)	NA
pl	**3.02 (1.84 to 4.20)**	**3.66 (1.65 to 5.67)**	1.11 (-0.36 to 2.57)	3.24 (0.97 to 5.50)	**1.91 (0.39 to 3.40)**	1.92 (-0.40 to 4.23)	**1.57 (0.42 to 2.72)**	-0.05 (-1.97 to 1.87)	-0.68 (-2.07 to 0.71)	NA
sc	**1.72 (0.35 to 3.08)**	1.55 (-0.64 to 3.75)	-1.36 (-3.02 to 0.30)	-0.54 (-2.90 to 1.79)	-0.81 (-2.50 to 0.90)	2.40 (-0.06 to 4.84)	NA	NA	NA	NA
si	**1.33 (0.06 to 2.62)**	1.50 (-0.62 to 3.62)	-0.26 (-1.90 to 1.39)	-0.49 (-2.79 to 1.78)	-0.15 (-1.77 to 1.46)	1.75 (-0.53 to 4.03)	1.39 (-0.04 to 2.83)	0.13 (-2.18 to 2.44)	-0.79 (-2.45 to 0.88)	NA
sn	**2.38 (0.06 to 4.72)**	2.64 (-0.26 to 5.52)	NA	0.72 (-2.27 to 3.69)	0.16 (-2.40 to 2.70)	NA	NA	NA	NA	NA
st	**2.42 (0.95 to 3.89)**	1.58 (-0.68 to 3.86)	-0.04 (-1.86 to 1.78)	0.23 (-2.07 to 2.54)	**-3.33 (-5.02 to -1.64)**	**2.43 (0.18 to 4.65)**	1.02 (-1.00 to 3.05)	**-2.85 (-5.48 to -0.27)**	-1.40 (-3.28 to 0.50)	NA
sw	0.69 (-0.76 to 2.12)	-0.23 (-2.51 to 2.06)	-1.21 (-3.09 to 0.66)	-0.94 (-3.52 to 1.65)	-1.38 (-3.19 to 0.42)	1.30 (-1.69 to 4.27)	NA	**-6.45 (-9.15 to -3.76)**	NA	NA
us	**3.93 (2.44 to 5.41)**	**4.13 (1.88 to 6.38)**	-0.08 (-2.10 to 1.96)	1.98 (-0.49 to 4.42)	1.68 (-0.21 to 3.55)	1.58 (-0.92 to 4.09)	1.81 (0.12 to 3.45)	1.33 (-1.30 to 3.94)	-0.69 (-2.65 to 1.23)	NA
mn vs.										

nn	-0.02 (-1.37 to 1.34)	**1.93 (0.42 to 3.42)**	0.32 (-1.94 to 2.58)	-0.61 (-2.54 to 1.31)	1.25 (-0.69 to 3.19)	2.46 (-0.54 to 5.51)	NA	NA	NA	NA
nb	0.78 (-0.57 to 2.13)	**5.44 (3.78 to 7.08)**	NA	-1.12 (-3.42 to 1.22)	1.10 (-1.19 to 3.42)	NA	NA	NA	NA	NA
oc	0.82 (-0.22 to 1.86)	**2.77 (1.36 to 4.18)**	-0.08 (-1.88 to 1.75)	-0.89 (-2.76 to 0.96)	**2.11 (0.76 to 3.45)**	**2.79 (1.34 to 4.22)**	**1.91 (0.24 to 3.55)**	2.07 (-0.29 to 4.46)	1.25 (-0.49 to 2.96)	NA
pl	**1.35 (0.63 to 2.07)**	**2.26 (1.43 to 3.08)**	**1.32 (0.10 to 2.53)**	2.32 (1.29 to 3.33)	**3.17 (2.19 to 4.15)**	0.70 (-0.66 to 2.06)	1.09 (-0.06 to 2.24)	1.34 (-0.05 to 2.70)	**1.16 (0.15 to 2.15)**	0.82 (-0.14 to 1.84)
si	-0.33 (-1.06 to 0.39)	0.10 (-0.71 to 0.89)	-0.06 (-1.30 to 1.18)	-1.41 (-2.48 to -0.35)	**1.11 (0.08 to 2.15)**	0.53 (-0.74 to 1.81)	**0.91 (0.10 to 1.75)**	**1.52 (0.28 to 2.73)**	**1.05 (0.23 to 1.89)**	0.36 (-0.32 to 1.05)
st	0.75 (-0.19 to 1.68)	0.18 (-0.80 to 1.15)	0.16 (-1.02 to 1.35)	-0.69 (-1.80 to 0.43)	**-2.07 (-3.10 to -1.04)**	**1.21 (0.00 to 2.42)**	0.53 (-0.67 to 1.75)	**-1.47 (-2.86 to -0.07)**	0.45 (-0.59 to 1.50)	**1.23 (0.39 to 2.06)**
sw	**-0.98 (-1.91 to -0.05)**	-1.63 (-2.84 to -0.43)	-1.01 (-2.57 to 0.56)	-1.87 (-3.46 to -0.26)	-0.12 (-1.46 to 1.21)	0.08 (-2.26 to 2.40)	NA	**-5.07 (-7.42 to -2.73)**	NA	NA
us	**2.26 (1.20 to 3.33)**	**2.73 (1.60 to 3.86)**	0.13 (-1.54 to 1.81)	1.06 (-0.36 to 2.47)	**2.94 (1.53 to 4.36)**	0.36 (-1.32 to 2.01)	**1.33 (0.23 to 2.42)**	**2.72 (1.14 to 4.28)**	1.16 (-0.09 to 2.40)	0.69 (-0.30 to 1.66)
mrt vs.										
mt	NA	NA	0.60 (-2.39 to 3.56)	1.32 (-1.75 to 4.39)	**4.04 (1.04 to 7.05)**	-0.66 (-3.64 to 2.33)	NA	NA	NA	NA
nb	NA	**5.36 (2.69 to 8.01)**	NA	-0.35 (-3.49 to 2.81)	2.56 (-0.51 to 5.63)	NA	NA	NA	NA	NA
oc	NA	**2.69 (0.12 to 5.26)**	0.04 (-2.73 to 2.79)	-0.12 (-2.98 to 2.70)	**3.57 (1.07 to 6.08)**	1.58 (-0.99 to 4.17)	NA	NA	NA	NA
pl	NA	2.18 (-0.11 to 4.50)	1.43 (-1.02 to 3.85)	3.09 (0.67 to 5.51)	**4.62 (2.34 to 6.92)**	-0.51 (-3.04 to 2.05)	NA	NA	NA	NA
si	NA	0.02 (-2.25 to 2.31)	0.05 (-2.34 to 2.47)	-0.64 (-3.03 to 1.75)	**2.56 (0.29 to 4.88)**	-0.68 (-3.15 to 1.80)	NA	NA	NA	NA
su	NA	-1.59 (-4.47 to 1.26)	-0.51 (-3.33 to 2.33)	NA	**2.99 (0.16 to 5.82)**	NA	NA	NA	NA	NA
us	NA	**2.66 (0.26 to 5.05)**	0.24 (-2.45 to 2.92)	1.83 (-0.73 to 4.41)	**4.39 (1.92 to 6.90)**	-0.85 (-3.54 to 1.86)	NA	NA	NA	NA

mt vs.										
st	-0.41 (-2.62 to 1.78)	NA	-0.32 (-2.63 to 2.01)	-1.23 (-3.55 to 1.06)	**-4.66 (-6.88 to -2.44)**	0.66 (-1.68 to 3.00)	NA	NA	NA	NA
sw	-2.15 (-4.38 to 0.12)	NA	-1.49 (-3.79 to 0.81)	-2.41 (-4.92 to 0.07)	**-2.71 (-5.05 to -0.37)**	-0.47 (-3.45 to 2.46)	NA	NA	NA	NA
nn vs.										
nb	0.80 (-0.87 to 2.46)	**3.51 (1.48 to 5.53)**	NA	-0.51 (-3.16 to 2.14)	-0.15 (-2.78 to 2.47)	NA	NA	NA	NA	NA
pl	**1.37 (0.05 to 2.68)**	0.33 (-1.09 to 1.76)	1.00 (-1.13 to 3.15)	2.92 (1.09 to 4.76)	**1.91 (0.13 to 3.70)**	-1.76 (-4.99 to 1.43)	NA	NA	NA	NA
prp	0.03 (-2.11 to 2.16)	-1.47 (-3.67 to 0.73)	-1.31 (-3.91 to 1.24)	-0.54 (-2.98 to 1.91)	0.04 (-2.40 to 2.47)	-2.72 (-6.28 to 0.80)	NA	NA	NA	NA
sc	0.06 (-1.30 to 1.43)	**-1.77 (-3.19 to -0.34)**	-1.48 (-3.61 to 0.64)	-0.85 (-2.59 to 0.88)	-0.80 (-2.64 to 1.04)	-1.29 (-3.89 to 1.29)	NA	NA	NA	NA
si	-0.32 (-1.52 to 0.89)	**-1.83 (-3.12 to -0.54)**	-0.38 (-2.26 to 1.50)	-0.81 (-2.46 to 0.85)	-0.14 (-1.76 to 1.50)	-1.93 (-5.09 to 1.18)	NA	NA	NA	NA
st	0.76 (-0.75 to 2.27)	**-1.75 (-3.35 to -0.13)**	-0.16 (-2.56 to 2.24)	-0.08 (-2.16 to 1.98)	**-3.32 (-5.27 to -1.36)**	-1.26 (-4.26 to 1.72)	NA	NA	NA	NA
su	NA	**-3.44 (-5.99 to -0.89)**	-0.94 (-3.59 to 1.71)	NA	0.29 (-2.16 to 2.75)	NA	NA	NA	NA	NA
sw	-0.97 (-2.48 to 0.57)	**-3.56 (-5.27 to -1.83)**	-1.33 (-3.68 to 1.03)	-1.26 (-3.43 to 0.92)	-1.37 (-3.39 to 0.66)	-2.39 (-6.11 to 1.31)	NA	NA	NA	NA
us	**2.28 (0.77 to 3.77)**	0.80 (-0.79 to 2.41)	-0.19 (-2.54 to 2.16)	1.67 (-0.32 to 3.65)	1.69 (-0.30 to 3.67)	-2.11 (-5.44 to 1.17)	NA	NA	NA	NA
nb vs.										
nc	-0.42 (-2.13 to 1.32)	**-4.36 (-6.57 to -2.12)**	NA	0.51 (-2.19 to 3.21)	0.01 (-2.63 to 2.64)	NA	NA	NA	NA	NA
oc	0.03 (-1.52 to 1.59)	**-2.67 (-4.65 to -0.71)**	NA	0.22 (-2.41 to 2.83)	1.01 (-1.43 to 3.43)	NA	NA	NA	NA	NA
pl	0.57 (-0.73 to 1.89)	**-3.18 (-4.74 to -1.59)**	NA	3.43 (1.20 to 5.65)	2.06 (-0.12 to 4.24)	NA	NA	NA	NA	NA

prp	-0.77 (-2.92 to 1.41)	**-4.98 (-7.30 to -2.66)**	NA	-0.04 (-2.81 to 2.73)	0.19 (-2.54 to 2.95)	NA	NA	NA	NA	NA
sc	-0.74 (-2.10 to 0.63)	**-5.28 (-6.95 to -3.61)**	NA	-0.34 (-2.59 to 1.91)	-0.65 (-2.88 to 1.58)	NA	NA	NA	NA	NA
si	-1.12 (-2.36 to 0.13)	**-5.34 (-6.93 to -3.74)**	NA	-0.30 (-2.37 to 1.77)	0.01 (-2.06 to 2.07)	NA	NA	NA	NA	NA
sn	-0.07 (-2.40 to 2.29)	**-4.19 (-6.66 to -1.71)**	NA	0.92 (-2.02 to 3.86)	0.32 (-2.66 to 3.28)	NA	NA	NA	NA	NA
st	-0.03 (-1.52 to 1.44)	**-5.26 (-6.96 to -3.53)**	NA	0.43 (-2.00 to 2.85)	**-3.17 (-5.50 to -0.83)**	NA	NA	NA	NA	NA
su	NA	**-6.95 (-9.59 to -4.31)**	NA	NA	0.44 (-2.33 to 3.21)	NA	NA	NA	NA	NA
sw	**-1.77 (-3.27 to -0.25)**	**-7.07 (-8.93 to -5.20)**	NA	-0.75 (-3.27 to 1.76)	-1.22 (-3.61 to 1.18)	NA	NA	NA	NA	NA
us	1.48 (-0.01 to 2.97)	**-2.70 (-4.44 to -0.97)**	NA	2.18 (-0.18 to 4.53)	1.84 (-0.51 to 4.21)	NA	NA	NA	NA	NA
nc vs.										
pl	0.98 (-0.36 to 2.32)	1.18 (-0.50 to 2.87)	1.32 (-0.87 to 3.46)	2.92 (1.06 to 4.80)	**2.06 (0.26 to 3.82)**	-1.31 (-3.95 to 1.38)	NA	NA	NA	NA
st	0.38 (-1.12 to 1.90)	-0.90 (-2.72 to 0.93)	0.16 (-2.17 to 2.46)	-0.08 (-2.17 to 1.99)	**-3.18 (-5.12 to -1.24)**	-0.80 (-3.20 to 1.57)	NA	NA	NA	NA
sw	-1.35 (-2.90 to 0.21)	**-2.71 (-4.68 to -0.75)**	-1.01 (-3.39 to 1.40)	-1.26 (-3.48 to 0.98)	-1.23 (-3.24 to 0.79)	-1.93 (-5.18 to 1.33)	NA	NA	NA	NA
us	**1.90 (0.39 to 3.41)**	1.66 (-0.20 to 3.50)	0.13 (-2.31 to 2.56)	1.67 (-0.37 to 3.70)	1.83 (-0.15 to 3.81)	-1.65 (-4.42 to 1.12)	NA	NA	NA	NA
oc vs.										
pl	0.53 (-0.45 to 1.50)	-0.51 (-1.78 to 0.75)	1.39 (-0.25 to 3.04)	3.21 (1.56 to 4.88)	1.05 (-0.27 to 2.40)	**-2.09 (-3.86 to -0.33)**	-0.82 (-2.00 to 0.38)	-0.73 (-2.71 to 1.20)	-0.08 (-1.50 to 1.33)	NA
prp	-0.80 (-2.83 to 1.22)	**-2.31 (-4.47 to -0.15)**	-0.92 (-3.21 to 1.35)	-0.26 (-2.67 to 2.16)	-0.82 (-3.00 to 1.39)	**-3.04 (-5.26 to -0.85)**	-1.79 (-3.57 to 0.03)	-0.90 (-3.78 to 1.99)	-0.82 (-2.91 to 1.28)	NA

sc	-0.77 (-1.94 to 0.40)	**-2.61 (-4.08 to -1.15)**	-1.08 (-2.78 to 0.62)	-0.56 (-2.35 to 1.22)	**-1.66 (-3.12 to -0.20)**	-1.61 (-3.63 to 0.39)	NA	NA	NA	NA
si	-1.15 (-2.20 to -0.12)	**-2.67 (-3.96 to -1.39)**	0.02 (-1.49 to 1.53)	-0.52 (-2.14 to 1.10)	-1.00 (-2.30 to 0.31)	**-2.26 (-3.70 to -0.80)**	-1.00 (-2.46 to 0.48)	-0.55 (-2.88 to 1.76)	-0.19 (-1.85 to 1.51)	NA
st	-0.07 (-1.35 to 1.22)	**-2.59 (-4.14 to -1.05)**	0.24 (-1.80 to 2.25)	0.21 (-1.79 to 2.21)	**-4.18 (-5.67 to -2.69)**	-1.58 (-3.41 to 0.26)	-1.38 (-3.40 to 0.65)	**-3.54 (-6.16 to -0.93)**	-0.80 (-2.68 to 1.10)	NA
su	NA	**-4.28 (-6.80 to -1.77)**	-0.55 (-2.80 to 1.73)	NA	-0.57 (-2.72 to 1.61)	NA	NA	NA	NA	NA
sw	**-1.80 (-2.96 to -0.65)**	**-4.40 (-5.77 to -3.02)**	-0.93 (-2.46 to 0.61)	-0.97 (-2.59 to 0.64)	**-2.23 (-3.64 to -0.83)**	**-2.71 (-5.28 to -0.14)**	NA	**-7.13 (-9.87 to -4.45)**	NA	NA
us	**1.45 (0.13 to 2.76)**	-0.03 (-1.57 to 1.51)	0.21 (-1.80 to 2.19)	1.95 (0.04 to 3.90)	0.83 (-0.82 to 2.50)	**-2.43 (-4.34 to -0.52)**	-0.59 (-2.28 to 1.11)	0.65 (-2.01 to 3.26)	-0.09 (-2.03 to 1.88)	NA
pl vs.										
prp	-1.33 (-3.19 to 0.53)	-1.80 (-3.64 to 0.04)	**-2.31 (-4.27 to -0.35)**	**-3.47 (-5.41 to -1.53)**	-1.88 (-3.79 to 0.03)	-0.96 (-3.07 to 1.17)	-0.97 (-2.30 to 0.38)	-0.16 (-2.29 to 1.99)	-0.73 (-2.27 to 0.81)	-1.03 (-2.43 to 0.34)
sc	**-1.30 (-2.13 to -0.47)**	**-2.10 (-3.00 to -1.22)**	**-2.47 (-3.58 to -1.35)**	**-3.77 (-4.84 to -2.70)**	**-2.72 (-3.64 to -1.78)**	0.47 (-1.46 to 2.38)	NA	NA	NA	NA
si	**-1.68 (-2.34 to -1.03)**	**-2.16 (-2.81 to -1.52)**	**-1.38 (-2.39 to -0.36)**	**-3.73 (-4.56 to -2.89)**	**-2.05 (-2.79 to -1.31)**	-0.17 (-1.52 to 1.20)	-0.18 (-1.04 to 0.69)	0.18 (-1.10 to 1.47)	-0.11 (-1.00 to 0.82)	-0.46 (-1.70 to 0.72)
sm	NA	NA	-1.53 (-3.86 to 0.80)	-2.27 (-4.60 to 0.06)	**-3.30 (-5.53 to -1.07)**	0.25 (-2.12 to 2.63)	NA	NA	NA	NA
sn	-0.63 (-2.72 to 1.45)	-1.01 (-3.11 to 1.07)	NA	**-2.52 (-4.69 to -0.36)**	-1.75 (-3.89 to 0.35)	NA	NA	NA	NA	NA
st	-0.60 (-1.60 to 0.40)	**-2.08 (-3.12 to -1.05)**	-1.16 (-2.66 to 0.40)	**-3.00 (-4.31 to -1.69)**	**-5.23 (-6.28 to -4.17)**	0.50 (-1.25 to 2.27)	-0.56 (-2.23 to 1.10)	**-2.80 (-4.58 to -1.02)**	-0.72 (-1.97 to 0.57)	0.40 (-0.94 to 1.64)
su	NA	**-3.77 (-6.03 to -1.52)**	**-1.94 (-3.64 to -0.22)**	NA	-1.63 (-3.38 to 0.14)	NA	NA	NA	NA	NA
sw	**-2.33 (-3.26 to -1.41)**	**-3.89 (-4.97 to -2.80)**	**-2.32 (-3.62 to -1.02)**	**-4.18 (-5.47 to -2.88)**	**-3.28 (-4.38 to -2.19)**	-0.62 (-2.51 to 1.24)	NA	**-6.40 (-8.30 to -4.51)**	NA	NA
us		0.48 (-0.54 to 1.47)	-1.19 (-2.77 to 0.41)	**-1.25 (-2.50 to -0.01)**	-0.23 (-1.43 to 0.98)	-0.35 (-2.15 to 1.47)	0.24 (-0.98 to 1.44)	1.39 (-0.39 to 3.16)	-0.01 (-1.35 to 1.34)	-0.14 (-1.57 to 1.21)

prp vs.										
st	0.73 (-1.26 to 2.74)	-0.28 (-2.25 to 1.70)	1.16 (-1.09 to 3.39)	0.46 (-1.70 to 2.62)	**-3.36 (-5.42 to -1.31)**	1.46 (-0.82 to 3.77)	0.41 (-1.36 to 2.17)	**-2.64 (-4.80 to -0.50)**	0.02 (-1.60 to 1.65)	**1.43 (0.15 to 2.70)**
sw	-1.00 (-3.00 to 1.02)	**-2.09 (-4.18 to -0.01)**	-0.01 (-2.17 to 2.17)	-0.71 (-2.98 to 1.58)	-1.41 (-3.54 to 0.73)	0.33 (-2.49 to 3.16)	NA	**-6.24 (-9.13 to -3.37)**	NA	NA
us	**2.25 (0.47 to 4.02)**	**2.28 (0.51 to 4.06)**	1.12 (-0.62 to 2.88)	2.21 (0.39 to 3.99)	1.65 (-0.17 to 3.46)	0.61 (-1.12 to 2.33)	**1.21 (0.15 to 2.25)**	1.55 (-0.26 to 3.33)	0.73 (-0.56 to 2.02)	**0.89 (0.19 to 1.57)**
sc vs.										
si	-0.38 (-1.07 to 0.32)	-0.06 (-0.87 to 0.75)	**1.10 (0.13 to 2.06)**	0.04 (-0.83 to 0.92)	0.66 (-0.19 to 1.52)	-0.64 (-2.39 to 1.15)	NA	NA	NA	NA
st	0.70 (-0.30 to 1.73)	0.02 (-1.04 to 1.09)	1.32 (-0.06 to 2.67)	0.77 (-0.62 to 2.17)	**-2.52 (-3.59 to -1.44)**	0.03 (-1.47 to 1.54)	NA	NA	NA	NA
sw	-1.03 (-2.15 to 0.09)	**-1.79 (-3.12 to -0.44)**	0.15 (-1.33 to 1.65)	-0.41 (-2.01 to 1.20)	-0.57 (-1.90 to 0.77)	-1.10 (-3.77 to 1.60)	NA	NA	NA	NA
us	**2.22 (1.11 to 3.31)**	**2.58 (1.42 to 3.72)**	1.29 (-0.28 to 2.85)	2.52 (1.16 to 3.86)	**2.49 (1.15 to 3.83)**	-0.82 (-2.85 to 1.20)	NA	NA	NA	NA
si vs.										
st	**1.08 (0.12 to 2.05)**	0.08 (-0.91 to 1.07)	0.22 (-1.28 to 1.72)	0.73 (-0.56 to 2.02)	**-3.18 (-4.25 to -2.11)**	0.68 (-0.98 to 2.32)	-0.38 (-1.84 to 1.07)	**-2.99 (-4.57 to -1.41)**	-0.61 (-1.66 to 0.43)	0.86 (-0.22 to 1.93)
sw	-0.65 (-1.67 to 0.37)	**-1.73 (-2.90 to -0.55)**	-0.95 (-2.33 to 0.44)	-0.45 (-1.89 to 1.01)	**-1.23 (-2.44 to -0.02)**	-0.45 (-2.77 to 1.85)	NA	**-6.58 (-8.89 to -4.28)**	NA	NA
us	**2.60 (1.65 to 3.55)**	**2.63 (1.67 to 3.59)**	0.19 (-1.20 to 1.58)	2.47 (1.34 to 3.60)	**1.83 (0.69 to 2.97)**	-0.17 (-1.58 to 1.21)	0.42 (-0.51 to 1.30)	1.20 (-0.25 to 2.65)	0.10 (-0.99 to 1.19)	0.32 (-0.38 to 1.01)
sm vs.										
us	NA	NA	0.35 (-2.26 to 2.94)	1.01 (-1.51 to 3.54)	**3.08 (0.63 to 5.54)**	-0.59 (-3.14 to 1.95)	NA	NA	NA	NA
sn vs.										
st	0.03 (-2.12 to 2.19)	-1.06 (-3.24 to 1.11)	NA	-0.49 (-2.74 to 1.77)	**-3.49 (-5.65 to -1.29)**	NA	NA	NA	NA	NA

sw	-1.70 (-3.93 to 0.50)	**-2.87 (-5.16 to -0.56)**	NA	-1.67 (-4.15 to 0.83)	-1.54 (-3.84 to 0.78)	NA	NA	NA	NA	NA
us	**1.51 (0.28 to 2.74)**	1.49 (-0.70 to 3.68)	NA	1.26 (-1.03 to 3.55)	1.52 (-0.79 to 3.83)	NA	NA	NA	NA	NA
st vs.										
su	NA	-1.69 (-3.70 to 0.31)	-0.78 (-2.91 to 1.35)	NA	**3.61 (1.64 to 5.57)**	NA	NA	NA	NA	NA
sw	**-1.73 (-2.94 to -0.52)**	**-1.81 (-3.19 to -0.40)**	-1.17 (-2.99 to 0.65)	-1.18 (-2.98 to 0.62)	**1.95 (0.54 to 3.35)**	-1.13 (-3.71 to 1.44)	NA	**-3.60 (-6.19 to -1.00)**	NA	NA
us	**1.51 (0.28 to 2.74)**	**2.55 (1.31 to 3.79)**	-0.03 (-1.93 to 1.87)	**1.75 (0.15 to 3.32)**	**5.01 (3.58 to 6.44)**	-0.85 (-2.81 to 1.11)	0.79 (-0.84 to 2.42)	**4.19 (2.66 to 5.71)**	0.71 (-0.73 to 2.15)	-0.54 (-1.81 to 0.73)
su vs.										
us	NA	**4.25 (1.89 to 6.58)**	0.75 (-1.42 to 2.92)	NA	1.40 (-0.67 to 3.46)	NA	NA	NA	NA	NA
sw vs.										
us	**3.25 (1.98 to 4.52)**	**4.36 (2.94 to 5.78)**	1.14 (-0.70 to 2.97)	**2.93 (1.17 to 4.66)**	**3.06 (1.53 to 4.60)**	0.28 (-2.31 to 2.90)	NA	**7.78 (5.17 to 10.38)**	NA	NA

Notes: significant comparisons ($p<0.05$) are shown in bold. NA=not applicable.

Supplementary Table 6. Statistically Significant sensitivity analyses results of network meta-analyses for pain and function

a. Results of pair-wise meta-analysis of direct comparisons

Comparison of Interventions	Mean Change in Pain Score SMD (95% CI)	Comparison of Interventions	Mean Change in Function Score SMD (95% CI)
ac vs. dt	-2.38 (-4.13 to -0.64)	ac vs. nb	4.77 (3.29 to 6.24)
ac vs. ls	-1.91 (-3.34 to -0.49)	ac vs. oc	2.12 (0.63 to 3.60)
ac vs. pl	1.11 (0.22 to 1.98)	ac vs. pl	1.60 (0.70 to 2.51)
ac vs. sw	-1.23 (-2.40 to -0.06)	ac vs. sw	-2.28 (-3.63 to -0.93)
ac vs. us	2.01 (0.82 to 3.18)	ac vs. us	2.07 (0.89 to 3.26)
cpm vs. ls	-2.25 (-4.12 to -0.36)	cpt vs. ac	-0.90 (-1.72 to -0.09)
cpt vs. ds	-1.22 (-2.04 to -0.42)	cpt vs. dc	-2.30 (-4.58 to -0.02)
cpt vs. dt	-3.16 (-4.75 to -1.55)	cpt vs. ds	-0.92 (-1.82 to -0.03)
cpt vs. ls	-2.68 (-3.92 to -1.45)	cpt vs. dt	-2.20 (-3.35 to -1.04)
cpt vs. sc	-0.97 (-1.69 to -0.26)	cpt vs. ls	-2.96 (-5.07 to -0.85)
cpt vs. si	-1.36 (-1.93 to -0.79)	cpt vs. nb	3.87 (2.38 to 5.35)
cpt vs. sw	-2.00 (-2.94 to -1.05)	cpt vs. pl	0.70 (0.04 to 1.36)
cpt vs. us	1.24 (0.33 to 2.14)	cpt vs. sc	-1.41 (-2.22 to -0.59)
ds vs. dt	-1.93 (-3.59 to -0.28)	cpt vs. si	-1.46 (-2.08 to -0.84)
ds vs. ls	-1.46 (-2.86 to -0.05)	cpt vs. st	-1.39 (-2.28 to -0.51)
ds vs. pl	1.56 (0.70 to 2.43)	cpt vs. su	-3.08 (-5.29 to -0.89)
ds vs. us	2.46 (1.33 to 3.61)	cpt vs. sw	-3.19 (-4.37 to -2.00)
hy vs. dt	-2.70 (-4.78 to -0.59)	cpt vs. us	1.17 (0.26 to 2.08)
hy vs. ls	-2.23 (-4.08 to -0.33)	dc vs. nb	6.17 (3.46 to 8.86)
mn vs. cpt	1.01 (0.37 to 1.65)	dc vs. nn	2.68 (0.09 to 5.23)
mn vs. dt	-2.14 (-3.81 to -0.49)	dt vs. hy	1.54 (0.02 to 3.06)
mn vs. ls	-1.67 (-2.99 to -0.35)	dt vs. nb	6.07 (4.22 to 7.92)
mn vs. pl	1.35 (0.62 to 2.07)	dt vs. nn	2.57 (0.93 to 4.20)
mn vs. sw	-0.99 (-1.92 to -0.06)	hy vs. nb	4.53 (2.68 to 6.38)
mn vs. us	2.25 (1.18 to 3.30)	hy vs. sw	-2.53 (-4.08 to -0.99)
mt vs. ls	-2.84 (-5.23 to -0.47)	ls vs. nb	6.83 (4.29 to 9.38)
nb vs. ls	-2.45 (-4.16 to -0.73)	ls vs. nn	3.34 (0.90 to 5.80)
nc vs. dt	-2.50 (-4.42 to -0.59)	ls vs. oc	4.18 (1.80 to 6.54)
nc vs. ls	-2.03 (-3.75 to -0.31)	ls vs. pl	3.66 (1.65 to 5.67)
oc vs. dt	-2.95 (-4.79 to -1.14)	ls vs. us	4.13 (1.87 to 6.39)
oc vs. ls	-2.48 (-3.98 to -0.98)	mn vs. cpt	1.56 (0.79 to 2.32)
oc vs. sw	-1.80 (-2.94 to -0.67)	mn vs. nb	5.43 (3.80 to 7.06)
pl vs. dt	-3.49 (-5.13 to -1.84)	mn vs. nn	1.94 (0.45 to 3.45)
pl vs. ls	-3.02 (-4.19 to -1.83)	mn vs. oc	2.78 (1.38 to 4.19)
pl vs. nn	-1.37 (-2.67 to -0.06)	mn vs. pl	2.26 (1.43 to 3.10)
pl vs. sw	-2.34 (-3.25 to -1.42)	mn vs. sw	-1.63 (-2.82 to -0.42)
sc vs. dt	-2.18 (-3.83 to -0.54)	mn vs. us	2.73 (1.60 to 3.86)
sc vs. ls	-1.71 (-3.08 to -0.34)	nb vs. cpm	-4.49 (-6.56 to -2.41)
sc vs. pl	1.31 (0.49 to 2.13)	nb vs. ds	-4.79 (-6.51 to -3.08)
sc vs. us	2.21 (1.12 to 3.29)	nb vs. nc	-4.35 (-6.56 to -2.13)
si vs. dt	-1.80 (-3.30 to -0.30)	nb vs. su	-6.95 (-9.62 to -4.29)
si vs. ls	-1.32 (-2.60 to -0.04)	nb vs. sw	-7.06 (-8.92 to -5.19)
si vs. oc	1.16 (0.11 to 2.20)	nn vs. st	-1.76 (-3.38 to -0.16)
si vs. pl	1.69 (1.04 to 2.35)	nn vs. su	-3.46 (-6.04 to -0.86)
si vs. st	1.09 (0.10 to 2.07)	nn vs. sw	-3.56 (-5.31 to -1.83)
si vs. us	2.60 (1.65 to 3.54)	oc vs. dc	-3.52 (-6.07 to -0.96)
st vs. ls	-2.41 (-3.90 to -0.92)	oc vs. ds	-2.14 (-3.61 to -0.67)
st vs. sw	-1.73 (-2.95 to -0.52)	oc vs. dt	-3.42 (-5.03 to -1.79)
sw vs. nb	1.76 (0.24 to 3.26)	oc vs. hy	-1.87 (-3.53 to -0.20)

us vs. dt	-4.39 (-6.18 to -2.62)	oc vs. nb	2.65 (0.67 to 4.62)
us vs. hy	-1.69 (-3.36 to -0.03)	oc vs. st	-2.60 (-4.15 to -1.05)
us vs. ls	-3.92 (-5.42 to -2.43)	oc vs. su	-4.30 (-6.84 to -1.74)
us vs. nn	-2.28 (-3.77 to -0.79)	oc vs. sw	-4.41 (-5.79 to -3.02)
us vs. oc	-1.44 (-2.75 to -0.12)	pl vs. dc	-3.00 (-5.30 to -0.69)
us vs. st	-1.51 (-2.75 to -0.27)	pl vs. ds	-1.62 (-2.56 to -0.70)
us vs. sw	-3.24 (-4.50 to -1.98)	pl vs. dt	-2.90 (-4.07 to -1.71)
		pl vs. hy	-1.36 (-2.54 to -0.16)
Comparison of Interventions	**Mean Change in Function Score SMD (95% CI)**	pl vs. nb	3.17 (1.59 to 4.74)
st vs. nb	5.26 (3.53 to 6.98)	pl vs. st	-2.09 (-3.12 to -1.06)
st vs. sw	-1.80 (-3.19 to -0.39)	pl vs. su	-3.78 (-6.03 to -1.52)
sw vs. cpm	2.57 (0.71 to 4.42)	pl vs. sw	-3.89 (-4.96 to -2.79)
sw vs. ds	2.26 (0.91 to 3.62)	sc vs. nb	5.28 (3.61 to 6.95)
sw vs. nc	2.71 (0.73 to 4.69)	sc vs. nn	1.78 (0.34 to 3.22)
us vs. cpm	-1.79 (-3.49 to -0.08)	sc vs. oc	2.63 (1.14 to 4.09)
us vs. dc	-3.47 (-5.85 to -1.06)	sc vs. pl	2.11 (1.21 to 3.01)
us vs. ds	-2.09 (-3.28 to -0.90)	sc vs. sw	-1.78 (-3.12 to -0.44)
us vs. dt	-3.37 (-4.73 to -2.00)	sc vs. us	2.58 (1.42 to 3.72)
us vs. hy	-1.83 (-3.21 to -0.44)	si vs. nb	5.33 (3.76 to 6.90)
us vs. nb	2.70 (0.99 to 4.43)	si vs. nn	1.84 (0.56 to 3.12)
us vs. st	-2.55 (-3.81 to -1.32)	si vs. oc	2.68 (1.38 to 3.97)
us vs. su	-4.25 (-6.62 to -1.90)	si vs. pl	2.16 (1.51 to 2.80)
us vs. sw	-4.36 (-5.77 to -2.93)	si vs. us	2.63 (1.67 to 3.59)

b. Heterogeneity test result of pairwise meta-analysis (I^2 and P value)

Comparision	No. of studies	P	I^2	τ^2	Comparision	No. of studies	P	I^2	τ^2
Pain					**Passive flexion**				
ac vs.cpt	3	0.00	82.0%	0.3784	cpm vs.cpt	2	0.00	89.5%	0.8195
ac vs.pl	2	0.01	83.7%	0.5353	cpt vs.pl	2	0.00	64.9%	0.2677
cpm vs.cpt	2	0.15	50.8%	0.0891	ds vs.si	3	0.30	15.5%	0.0136
cpt vs.pl	3	0.76	0.0%	0.0000	dt vs.si	3	0.00	67.7%	0.1495
ds vs.cpt	2	0.03	78.4%	0.4441	mn vs.cpt	3	0.00	59.1%	0.1179
ds vs.si	5	0.00	74.3%	0.1607	mn vs.st	2	0.40	0.0%	0.0000
dt vs.si	3	0.00	93.9%	1.4414	sc vs.cpt	3	0.00	95.2%	1.9073
ls vs.pl	2	0.00	96.8%	2.4911	sc vs.si	3	0.00	94.5%	2.5342
mn vs.cpt	5	0.04	59.6%	0.1236	si vs.cpt	2	0.80	0.0%	0.0000
mn vs.pl	2	0.31	4.8%	0.0075	si vs.pl	2	0.00	92.4%	1.9822
mn vs.st	2	0.82	0.0%	0.0000	**Passive abduction**				
oc vs.pl	2	0.02	80.2%	0.3963	cpm vs.cpt	2	0.00	72.3%	0.2308
sc vs.cpt	5	0.20	33.3%	0.0440	cpt vs.pl	2	0.00	70.3%	0.2881
sc vs.pl	2	0.08	67.1%	0.2457	ds vs.si	4	0.60	0.0%	0.0000
sc vs.si	5	0.10	48.7%	0.0800	dt vs.si	2	0.00	91.8%	1.1177
si vs.cpt	4	0.56	0.0%	0.0000	hy vs.cpt	2	0.40	0.0%	0.0000
si vs.n	2	0.78	0.0%	0.0000	mn vs.cpt	3	0.10	45.1%	0.0667
si vs.nc	2	0.01	86.0%	0.8925	mn vs.pl	2	0.00	82.9%	0.8241
si vs.pl	5	0.00	96.7%	3.9455	mn vs.st	2	0.50	0.0%	0.0000
si vs.us	2	0.00	99.2%	126.8676	sc vs.cpt	4	0.00	94.1%	1.5455
st vs.cpt	3	0.03	71.0%	0.1670	sc vs.si	3	0.00	84.4%	0.6481
sw vs.mn	2	0.00	88.2%	0.5320	si vs.cpt	4	0.00	91.8%	1.0379
sw vs.pl	2	0.01	83.4%	0.6136	si vs.pl	4	0.00	97.6%	10.4313
us vs.cpt	3	0.40	0.0%	0.0000	si vs.us	2	0.00	99.0%	38.2032
					st vs.cpt	2	0.90	0.0%	0.0000
Function					sw vs.pl	2	0.00	98.4%	12.4006

ac vs.cpt	4	0.15	43.4%	0.0679	**Passive ER**				
ac vs.pl	2	0.02	81.7%	0.5537	cpm vs.cpt	2	0.00	70.9%	0.2141
cpm vs.cpt	2	0.05	73.4%	0.2514	cpt vs.pl	5	0.00	83.7%	0.5756
cpt vs.mn	3	0.75	0.0%	0.0000	ds vs.si	4	0.70	0.0%	0.0000
cpt vs.pl	4	0.00	84.5%	0.6675	dt vs.si	3	0.00	91.2%	0.7628
ds vs.cpt	2	0.04	77.2%	0.4091	hy vs.cpt	2	0.40	0.0%	0.0000
ds vs.si	4	0.82	0.0%	0.0000	hy vs.si	2	0.40	0.0%	0.0000
dt vs.si	2	0.11	60.1%	0.0784	mn vs.cpt	2	0.20	32.6%	0.0546
hy vs.cpt	2	0.97	0.0%	0.0000	mn vs.st	2	0.90	0.0%	0.0000
hy vs.si	2	0.11	60.5%	0.1044	sc vs.cpt	4	0.00	94.5%	1.7706
mn vs.st	2	0.36	0.0%	0.0000	sc vs.pl	2	0.00	98.0%	13.0671
sc vs.cpt	4	0.00	90.9%	0.9799	sc vs.si	4	0.00	91.8%	1.1177
sc vs.pl	2	0.00	97.1%	7.2556	si vs.cpt	4	0.00	92.7%	1.3211
si vs.cpt	5	0.00	85.0%	0.5012	si vs.pl	5	0.00	97.0%	5.4428
si vs.n	2	0.00	98.0%	5.9109	si vs.us	2	0.00	98.9%	22.7691
si vs.pl	6	0.00	96.3%	3.7394	st vs.cpt	3	0.00	95.3%	10.5527
si vs.sc	4	0.10	52.8%	0.1294	sw vs.pl	2	0.00	99.0%	21.6503
si vs.us	2	0.00	99.1%	73.0800	**Passive IR**				
st vs.cpt	3	0.88	0.0%	0.0000	cpm vs.cpt	2	0.00	78.4%	0.3228
sw vs.pl	2	0.00	88.6%	1.0995	ds vs.si	3	0.80	0.0%	0.0000
us vs.cpt	3	0.21	35.5%	0.0533	mn vs.cpt	2	0.80	0.0%	0.0000
					mn vs.st	2	0.40	0.0%	0.0000
Active ER					**Active flexion**				
st vs.cpt	2	1.00	0.0%	0.0000	ds vs.si	3	0.00	76.0%	0.1684
ds vs.si	3	0.00	87.2%	0.3691	us vs.cpt	2	0.10	55.4%	0.1379
us vs.cpt	2	0.50	0.0%	0.0000	**Active abduction**				
Active IR					ds vs.si	2	0.00	92.6%	0.5898
ds vs.si	3	0.60	0.0%	0.0000	st vs.cpt	3	0.00	95.9%	6.5658
us vs.cpt	2	0.50	0.0%	0.0000	us vs.cpt	2	0.60	0.0%	0.0000

Supplementary Table 7. Subgroup analyses of network meta-analyses for primary outcomes of representative comparisons

	Pain	Function	Passive Flexion	Passive abduction	Passive external rotation	Passive internal rotation
	SMD (95% CI)	SMD (95% CI)	SMD (95% CI)	SMD (95% CI)	SMD (95% CI)	SMD (95% CI)
ac vs. pl						
Overall analysis	**1.10 (0.23 to 1.99)**	**1.60 (0.70 to 2.50)**	0.63 (-0.82 to 2.08)	1.22 (-0.29 to 2.74)	0.52 (-0.95 to 2.00)	0.51 (-0.99 to 2.01)
Time of assessment						
≤0.5 month	1.92 (-0.64 to 4.43)	**1.24 (0.27 to 2.21)**	NA	NA	NA	NA
0.5-1 month	1.00 (-0.11 to 2.09)	1.56 (-0.08 to 3.24)	0.08 (-1.03 to 1.19)	-0.58 (-2.54 to 1.38)	-0.79 (-2.81 to 1.23)	0.12 (-1.73 to 1.95)
1-2 months	0.98 (-0.55 to 2.54)	1.00 (-0.36 to 2.33)	0.7 (-0.72 to 2.13)	**1.6 (0.04 to 3.18)**	0.01 (-1.46 to 1.48)	0.14 (-0.63 to 0.9)
2-3 months	0.65 (-0.49 to 1.81)	1.11 (-0.22 to 2.44)	0.88 (-0.63 to 2.38)	1.31 (-0.23 to 2.87)	-0.37 (-1.89 to 1.16)	0.81 (-0.53 to 2.14)
3-6 months	0.04 (-1.52 to 1.57)	0.58 (-1.10 to 2.25)	NA	NA	NA	NA
Stage of disease						
Painful freezing phase	-0.27 (-1.74 to 1.19)	**2.88 (1.25 to 4.51)**	NA	**4.82 (2.4 to 7.24)**	NA	NA
Adhesive phase	**1.86 (0.71 to 3.01)**	0.42 (-0.12 to 0.96)	NA	-0.72 (-1.57 to 0.11)	-0.11 (-1.4 to 1.18)	NA
Analgesics use						
Allowed	0.78 (-0.39 to 1.93)	0.71 (-0.69 to 2.11)	**2.58 (0.64 to 4.51)**	NA	1.03 (-1.20 to 3.26)	NA
No	1.04 (-0.12 to 2.19)	**1.18 (0.10 to 2.25)**	-0.54 (-2.37 to 1.29)	NA	0.28 (-1.26 to 1.82)	0.62 (-1.31 to 2.56)
Self-exercise						
Yes	0.5 (-0.72 to 1.73)	0.60 (-0.62 to 1.82)	-0.54 (-2.46 to 1.39)	NA	-0.11 (-2.17 to 1.97)	0.61 (-1.32 to 2.52)
No	0.64 (-0.85 to 2.14)	**1.22 (0.09 to 2.34)**	NA	NA	NA	NA
Gender ratio						
Female<0.5	-0.51 (-2.58 to 1.55)	0.67 (-0.78 to 2.13)	-0.53 (-1.93 to 0.88)	NA	-0.11 (-1.27 to 1.02)	NA
Female≥0.5	0.53 (-0.45 to 1.5)	**1.29 (0.09 to 2.47)**	0.55 (-1.20 to 2.34)	-0.91 (-3.71 to 1.96)	-0.04 (-2.28 to 2.20)	0.49 (-2.02 to 3.06)
Treatment duration						
<6 months	0.48 (-0.96 to 1.91)	0.96 (-1.05 to 2.92)	**2.04 (0.24 to 3.80)**	1.07 (-0.96 to 3.14)	0.38 (-2.03 to 2.80)	0.33 (-1.90 to 2.59)
6-12 months	**3.17 (1.52 to 4.82)**	**3.28 (1.99 to 4.56)**	NA	NA	NA	NA
Diabetes						
Including diabetes	**1.51 (0.4 to 2.52)**	0.55 (-0.73 to 1.79)	NA	NA	0.17 (-0.94 to 1.25)	NA
No diabetes	**1.42 (0.44 to 2.39)**	**1.31 (0.29 to 2.31)**	-0.55 (-2.37 to 1.26)	-1.26 (-4.39 to 1.92)	-0.12 (-2.17 to 1.96)	0.61 (-1.29 to 2.53)

cpt vs. pl						
Overall analysis	0.33 (-0.30 to 0.97)	**0.69 (0.03 to 1.36)**	**1.13 (0.22 to 2.05)**	**2.12 (1.26 to 2.98)**	**0.75 (0.06 to 1.42)**	0.06 (-1.31 to 1.42)
Time of assessment						
≤0.5 month	0.26 (-1.96 to 2.49)	0.84 (-0.09 to 1.78)	NA	NA	0.71 (-0.17 to 1.62)	NA
0.5-1 month	0.23 (-0.62 to 1.08)	-0.08 (-1.29 to 1.12)	-0.88 (-1.82 to 0.06)	1.21 (-0.01 to 2.41)	0.08 (-1.16 to 1.30)	1.52 (-0.79 to 3.81)
1-2 months	**1.21 (0.29 to 2.13)**	0.85 (-0.08 to 1.78)	1.02 (-0.04 to 2.08)	**2.64 (1.45 to 3.82)**	**1.12 (0.22 to 2.03)**	0.05 (-0.82 to 0.86)
2-3 months	0.75 (-0.29 to 1.81)	**1.47 (0.50 to 2.43)**	**1.60 (0.29 to 2.89)**	**2.28 (1.23 to 3.35)**	0.42 (-0.58 to 1.43)	0.65 (-0.87 to 2.17)
3-6 months	0.23 (-0.61 to 1.06)	0.48 (-0.64 to 1.62)	**2.13 (0.92 to 3.35)**	**2.39 (0.66 to 4.10)**	0.75 (-0.35 to 1.87)	NA
≥6 months	0.27 (-0.32 to 0.87)	0.09 (-0.54 to 0.71)	NA	NA	-0.76 (-1.87 to 0.36)	NA
Stage of disease						
Painful freezing phase	-0.81 (-1.78 to 0.16)	**2.55 (1.43 to 3.67)**	**1.87 (0.49 to 3.27)**	**3.83 (2.53 to 5.13)**	**2.29 (0.95 to 3.64)**	NA
Adhesive phase	**1.62 (0.57 to 2.67)**	0.03 (-0.51 to 0.54)	**1.96 (0.6 to 3.35)**	NA	0.31 (-0.4 to 1.02)	NA
Analgesics use						
Allowed	-0.22 (-1.17 to 0.73)	0.11 (-0.78 to 1.00)	**1.94 (0.56 to 3.30)**	NA	0.66 (-0.40 to 1.72)	NA
No	**1.09 (0.28 to 1.91)**	**1.43 (0.55 to 2.31)**	**2.73 (1.30 to 4.13)**	NA	0.27 (-0.70 to 1.25)	0.29 (-1.54 to 2.12)
Self-exercise						
Yes	**0.99 (0.22 to 1.75)**	**0.85 (0.10 to 1.59)**	**1.72 (0.63 to 2.79)**	-1.24 (-2.94 to 0.50)	0.59 (-0.17 to 1.35)	0.25 (-1.56 to 2.06)
No	-0.28 (-2.26 to 1.72)	0.62 (-0.76 to 2.00)	NA	NA	NA	NA
Gender ratio						
Female<0.5	**3.95 (2.06 to 5.86)**	**4.24 (2.36 to 6.11)**	**2.35 (1.41 to 3.30)**	NA	**1.41 (0.63 to 2.19)**	NA
Female≥0.5	-0.44 (-1.19 to 0.32)	0.00 (-0.83 to 0.82)	-0.09 (-1.32 to 1.14)	-1.79 (-3.80 to 0.26)	-0.41 (-1.32 to 0.51)	0.14 (-1.55 to 1.85)
Treatment duration						
<6 months	-0.35 (-1.36 to 0.64)	0.51 (-0.60 to 1.62)	**1.40 (0.29 to 2.47)**	0.18 (-1.30 to 1.67)	-0.00 (-1.34 to 1.35)	-0.02 (-1.62 to 1.59)
6-12 months	**3.56 (2.49 to 4.62)**	**3.67 (2.58 to 4.75)**	**3.36 (1.76 to 4.99)**	NA	**3.05 (1.85 to 4.23)**	NA
Diabetes						
Including diabetes	0.33 (-0.28 to 0.87)	0.09 (-0.60 to 0.73)	NA	NA	-0.21 (-0.86 to 0.41)	NA
No diabetes	0.79 (-0.04 to 1.62)	**1.41 (0.58 to 2.24)**	**1.52 (0.42 to 2.60)**	-2.16 (-4.62 to 0.36)	**1.46 (0.60 to 2.33)**	-0.07 (-1.77 to 1.62)
ds vs. pl						
Overall analysis	**1.59 (0.70 to 2.49)**	**1.62 (0.69 to 2.55)**	1.43 (-0.02 to 2.90)	**3.90 (2.63 to 5.13)**	**2.17 (0.99 to 3.33)**	0.19 (-1.46 to 1.82)
Time of assessment						
≤0.5 month	1.89 (-0.27 to 4)	NA	NA	NA	NA	NA

0.5-1 month	0.77 (-0.22 to 1.76)	0.71 (-0.51 to 1.93)	-0.13 (-1.45 to 1.19)	**1.76 (0.15 to 3.39)**	-0.05 (-1.83 to 1.71)	1.46 (-0.83 to 3.72)
1-2 months	**2.82 (1.71 to 3.92)**	**2.35 (1.30 to 3.39)**	0.89 (-0.79 to 2.56)	**3.64 (2.2 to 5.1)**	**1.72 (0.41 to 3.03)**	0.78 (-0.04 to 1.62)
2-3 months	**2.92 (1.74 to 4.1)**	**2.19 (0.91 to 3.45)**	1.36 (-0.86 to 3.59)	**4.66 (2.46 to 6.87)**	1.39 (-0.81 to 3.57)	0.92 (-1.06 to 2.9)
Stage of disease						
Painful freezing phase	NA	NA	NA	NA	NA	NA
Adhesive phase	NA	NA	0.93 (0.17 to 1.59)	NA	0.73 (-0.3 to 1.75)	NA
Analgesics use						
Allowed	0.58 (-0.53 to 1.67)	0.53 (-0.44 to 1.51)	2.10 (-0.05 to 4.14)	0.59 (-1.16 to 2.32)	0.86 (-0.61 to 2.33)	NA
No	**2.87 (1.72 to 4.02)**	**3.28 (1.92 to 4.65)**	1.56 (-0.58 to 3.71)	NA	**3.46 (1.21 to 5.71)**	-0.15 (-2.60 to 2.28)
Self-exercise						
Yes	**2.05 (1.07 to 3.03)**	**1.66 (0.65 to 2.67)**	**1.84 (0.33 to 3.38)**	0.09 (-1.23 to 1.41)	**2.49 (1.11 to 3.85)**	-0.22 (-2.26 to 1.78)
No	0.65 (-1.58 to 2.88)	1.63 (-0.09 to 3.31)	NA	NA	NA	NA
Gender ratio						
Female<0.5	0.43 (-1.61 to 2.48)	-0.00 (-2.05 to 2.04)	NA	NA	NA	NA
Female≥0.5	0.05 (-0.94 to 1.03)	0.53 (-0.56 to 1.63)	0.21 (-1.09 to 1.53)	0.10 (-1.69 to 1.88)	0.15 (-1.14 to 1.44)	0.08 (-1.69 to 1.87)
Treatment duration						
<6 months	0.51 (-0.43 to 1.42)	0.41 (-0.66 to 1.47)	NA	0.57 (-0.54 to 1.65)	NA	NA
6-12 months	**5.95 (4.44 to 7.47)**	**6.52 (4.96 to 8.05)**	**3.39 (1.47 to 5.31)**	NA	**5.24 (3.79 to 6.70)**	NA
Diabetes						
Including diabetes	0.41 (-0.48 to 1.33)	-0.01 (-1.05 to 1.05)	NA	NA	NA	NA
No diabetes	**2.66 (1.6 to 3.72)**	**2.83 (1.73 to 3.94)**	**1.91 (0.43 to 3.37)**	-0.81 (-3.33 to 1.74)	**3.00 (1.76 to 4.24)**	0.02 (-1.76 to 1.78)
ls vs.pl						
Overall analysis	**3.02 (1.84 to 4.20)**	**3.66 (1.65 to 5.67)**	1.11 (-0.36 to 2.57)	**3.24 (0.97 to 5.50)**	**1.91 (0.39 to 3.40)**	1.92 (-0.40 to 4.23)
Time of assessment						
≤0.5 month	**6.86 (4 to 9.71)**	NA	NA	NA	NA	NA
0.5-1 month	**1.57 (0.24 to 2.89)**	**3.18 (1.20 to 5.17)**	0.02 (-0.83 to 0.88)	**2.48 (0.11 to 4.85)**	1.14 (-0.44 to 2.73)	**3.56 (0.53 to 6.6)**
1-2 months	1.22 (-0.19 to 2.63)	**3.66 (1.66 to 5.69)**	-0.01 (-1.85 to 1.82)	0.81 (-2.04 to 3.67)	0.22 (-1.35 to 1.81)	0.84 (-0.35 to 2.04)
2-3 months	-0.09 (-2.07 to 1.89)	NA	-0.13 (-1.99 to 1.74)	NA	-0.48 (-2.43 to 1.47)	NA
3-6 months	**2.15 (0.86 to 3.42)**	**3.65 (2.00 to 5.32)**	NA	NA	NA	NA
Analgesics use						
Allowed	-0.1 (-1.58 to 1.39)	NA	-0.14 (-1.49 to 1.22)	NA	-0.48 (-2.36 to 1.44)	NA

No	**4.94 (3.47 to 6.41)**	**3.67 (1.66 to 5.67)**	**4.43 (1.96 to 6.88)**	NA	**4.59 (2.28 to 6.94)**	2.06 (-0.42 to 4.56)
Self-exercise						
Yes	1.02 (-0.41 to 2.45)	**3.66 (1.63 to 5.67)**	1.36 (-0.16 to 2.86)	-0.05 (-1.96 to 1.86)	**2.03 (0.53 to 3.55)**	2.1 (-0.32 to 4.55)
No	**6.33 (3.84 to 8.83)**	NA	NA	NA	NA	NA
Gender ratio						
Female<0.5	**2.14 (0.14 to 4.17)**	**3.65 (1.63 to 5.64)**	NA	NA	NA	NA
Female≥0.5	**3.07 (1.69 to 4.45)**	NA	0.31 (-0.76 to 1.41)	NA	**1.89 (0.37 to 3.41)**	NA
Treatment duration						
<6 months	**6.24 (4.5 to 7.99)**	NA	**3.45 (1.15 to 5.68)**	NA	**3.34 (0.87 to 5.84)**	1.26 (-0.83 to 3.33)
6-12 months	1.02 (-0.39 to 2.42)	**3.66 (1.67 to 5.66)**	-0.13 (-1.89 to 1.63)	NA	-0.48 (-2.45 to 1.48)	NA
Diabetes						
Including diabetes	-0.1 (-0.92 to 0.72)	NA	NA	NA	-0.47 (-1.29 to 0.34)	NA
No diabetes	**4.79 (3.31 to 6.26)**	**3.65 (1.66 to 5.66)**	NA	-0.05 (-1.96 to 1.89)	NA	2.04 (-0.37 to 4.44)
mn vs. pl						
Overall analysis	**1.35 (0.63 to 2.07)**	**2.26 (1.43 to 3.08)**	**1.32 (0.10 to 2.53)**	**2.32 (1.29 to 3.33)**	**3.17 (2.19 to 4.15)**	0.70 (-0.66 to 2.06)
Time of assessment						
≤0.5 month	0.53 (-1.68 to 2.73)	NA	NA	NA	**1.67 (0.38 to 3.00)**	NA
0.5-1 month	**1.32 (0.41 to 2.22)**	**1.70 (0.34 to 3.06)**	-0.53 (-1.49 to 0.46)	**1.96 (0.62 to 3.3)**	**1.54 (0.01 to 3.05)**	**2.72 (0.29 to 5.15)**
1-2 months	-0.08 (-2.10 to 1.98)	1.52 (-0.14 to 3.20)	-1.10 (-3.76 to 1.54)	-0.12 (-2.13 to 1.90)	-0.27 (-1.89 to 1.33)	-0.39 (-1.24 to 0.42)
2-3 months	1.20 (-1.36 to 3.75)	**3.73 (1.24 to 6.26)**	2.93 (-0.09 to 5.99)	**5.00 (2.30 to 7.72)**	**8.07 (5.59 to 10.57)**	-0.23 (-3.24 to 2.83)
3-6 months	NA	0.73 (-1.55 to 3.02)	**3.44 (0.47 to 6.47)**	**6.75 (3.80 to 9.73)**	**2.61 (0.22 to 5.03)**	NA
≥6 months	1.31 (-0.07 to 2.70)	**4.24 (2.84 to 5.66)**	NA	NA	**6.89 (4.24 to 9.51)**	NA
Stage of disease						
Painful freezing phase	0.8 (-0.23 to 1.83)	**4.31 (2.94 to 5.67)**	**1.82 (0.14 to 3.49)**	**2.97 (1.35 to 4.57)**	**1.82 (0.13 to 3.52)**	NA
Adhesive phase	**2 (0.4 to 3.61)**	**1.21 (0.44 to 1.93)**	**2.26 (0.29 to 4.26)**	NA	1.34 (-0.09 to 2.77)	NA
Analgesics use						
No	**1.99 (1.14 to 2.86)**	**3.20 (2.25 to 4.15)**	**3.33 (1.66 to 4.99)**	NA	**3.44 (2.27 to 4.59)**	0.83 (-0.75 to 2.39)
Self-exercise						
Yes	**1.53 (0.65 to 2.4)**	**1.98 (1.03 to 2.93)**	**1.84 (0.33 to 3.33)**	**1.68 (0.17 to 3.19)**	**3.44 (2.39 to 4.46)**	0.86 (-0.67 to 2.39)
No	0.86 (-1.25 to 3.03)	**3.69 (1.77 to 5.57)**	NA	NA	NA	NA
Gender ratio						

Female<0.5	**5.22 (2.95 to 7.51)**	**4.96 (2.18 to 7.74)**	**2.84 (1.51 to 4.20)**	NA	**1.78 (0.41 to 3.16)**	NA
Female≥0.5	0.57 (-0.2 to 1.36)	**1.60 (0.67 to 2.52)**	-0.28 (-1.59 to 1.03)	1.20 (-0.35 to 2.75)	**3.15 (2.05 to 4.26)**	2.01 (-0.39 to 4.42)
Treatment duration						
<6 months	**0.94 (0.1 to 1.78)**	**1.53 (0.55 to 2.51)**	**2.36 (0.56 to 4.09)**	1.12 (-0.23 to 2.54)	**2.17 (0.68 to 3.67)**	0.02 (-1.35 to 1.40)
6-12 months	**3.07 (1.86 to 4.28)**	**4.93 (3.11 to 6.73)**	**3.97 (1.86 to 6.09)**	NA	**4.49 (2.50 to 6.50)**	NA
Diabetes						
Including diabetes	NA	NA	NA	NA	**-1.63 (-2.84 to -0.43)**	NA
No diabetes	**1.79 (0.98 to 2.59)**	**2.91 (2.00 to 3.80)**	**1.97 (0.47 to 3.47)**	0.61 (-1.45 to 2.68)	**4.49 (3.38 to 5.61)**	0.81 (-0.69 to 2.28)
sc vs. pl						
Overall analysis	**1.30 (0.47 to 2.13)**	**2.10 (1.22 to 3.00)**	**2.47 (1.35 to 3.58)**	**3.77 (2.70 to 4.84)**	**2.72 (1.78 to 3.64)**	-0.47 (-2.38 to 1.46)
Time of assessment						
≤0.5 month	0.99 (-1.12 to 3.10)	**1.44 (0.11 to 2.77)**	NA	NA	1.07 (-0.19 to 2.38)	NA
0.5-1 month	1.00 (-0.57 to 2.55)	0.27 (-1.86 to 2.41)	-0.38 (-1.62 to 0.82)	**2.59 (0.61 to 4.57)**	**3.71 (1.18 to 6.18)**	1.97 (-0.73 to 4.67)
1-2 months	**2.38 (1.37 to 3.37)**	**3.41 (2.36 to 4.46)**	**2.94 (1.69 to 4.19)**	**4.25 (2.99 to 5.51)**	**2.95 (1.90 to 4.01)**	NA
2-3 months	**1.98 (0.74 to 3.22)**	**3.42 (2.22 to 4.62)**	**3.49 (2.08 to 4.89)**	**4.78 (3.46 to 6.12)**	**3.70 (2.61 to 4.80)**	-0.56 (-2.69 to 1.60)
3-6 months	0.35 (-0.50 to 1.18)	**1.52 (0.38 to 2.65)**	**3.44 (2.02 to 4.88)**	**3.49 (1.79 to 5.18)**	**2.76 (1.54 to 4.01)**	NA
≥6 months	0.60 (-0.07 to 1.24)	0.25 (-0.54 to 1.04)	NA	NA	1.51 (-0.14 to 3.13)	NA
Stage of disease						
Painful freezing phase	-0.08 (-1.16 to 1.02)	**3.89 (2.64 to 5.15)**	**3.09 (1.68 to 4.5)**	**5.41 (4.06 to 6.77)**	**3.52 (2.16 to 4.89)**	NA
Adhesive phase	**2.2 (0.86 to 3.54)**	0.46 (-0.41 to 1.3)	NA	NA	0.32 (-0.87 to 1.47)	NA
Analgesics use						
Allowed	0.33 (-0.73 to 1.41)	0.79 (-0.23 to 1.82)	**2.10 (0.19 to 4.00)**	NA	0.85 (-0.50 to 2.21)	NA
No	**2.27 (1.19 to 3.34)**	**3.09 (1.85 to 4.33)**	**4.41 (2.92 to 5.90)**	NA	**3.73 (2.39 to 5.05)**	-0.28 (-2.47 to 1.88)
Self-exercise						
Yes	**1.9 (0.96 to 2.83)**	**2.34 (1.35 to 3.33)**	**3.31 (2.05 to 4.57)**	NA	**3.04 (2.03 to 4.05)**	-0.29 (-2.42 to 1.86)
No	0.38 (-1.81 to 2.57)	1.52 (-0.19 to 3.24)	NA	NA	NA	NA
Gender ratio						
Female<0.5	**4.46 (2.58 to 6.36)**	**6.69 (4.79 to 8.57)**	**5.81 (4.55 to 7.09)**	NA	**5.19 (4.13 to 6.22)**	NA
Female≥0.5	0.05 (-0.91 to 1.01)	0.39 (-0.69 to 1.46)	0.25 (-1.02 to 1.57)	NA	-0.01 (-1.19 to 1.19)	-0.40 (-2.48 to 1.67)
Treatment duration						
<6 months	-0.11 (-1.37 to 1.13)	0.66 (-0.69 to 2.00)	**1.75 (0.33 to 3.15)**	NA	0.67 (-1.25 to 2.59)	-1.22 (-3.45 to 1.04)

6-12 months	**5.01 (3.72 to 6.29)**	**5.75 (4.34 to 7.17)**	**4.82 (3.19 to 6.45)**	NA	**5.08 (3.65 to 6.51)**	NA
Diabetes						
Including diabetes	0.53 (-0.11 to 1.1)	0.40 (-0.36 to 1.11)	NA	NA	-0.24 (-0.97 to 0.49)	NA
No diabetes	**2.84 (1.55 to 4.12)**	**4.08 (2.65 to 5.53)**	**4.25 (2.89 to 5.62)**	NA	**4.79 (3.36 to 6.22)**	NA
si vs. pl						
Overall analysis	**1.68 (1.03 to 2.34)**	**2.16 (1.52 to 2.81)**	**1.38 (0.36 to 2.39)**	**3.73 (2.89 to 4.56)**	**2.05 (1.31 to 2.79)**	**0.17 (1.20 to 1.52)**
Time of assessment						
≤0.5 month	0.51 (-1.22 to 2.21)	0.55 (-0.14 to 1.25)	NA	NA	0.18 (-0.48 to 0.87)	NA
0.5-1 month	0.34 (-0.50 to 1.17)	0.53 (-0.48 to 1.55)	0.11 (-0.74 to 0.98)	**1.39 (0.26 to 2.51)**	0.21 (-1.24 to 1.67)	1.22 (-0.70 to 3.13)
1-2 months	**2.65 (1.91 to 3.40)**	**2.71 (1.97 to 3.44)**	**1.11 (0.02 to 2.18)**	**3.55 (2.55 to 4.56)**	**1.79 (0.94 to 2.64)**	**0.92 (0.16 to 1.68)**
2-3 months	**3.16 (2.35 to 3.98)**	**3.22 (2.44 to 3.98)**	**1.79 (0.57 to 3.01)**	**4.56 (3.62 to 5.53)**	**1.27 (0.29 to 2.24)**	1.08 (-0.24 to 2.41)
3-6 months	0.19 (-0.61 to 1.00)	**1.31 (0.14 to 2.46)**	**2.04 (0.60 to 3.46)**	**3.04 (1.36 to 4.72)**	**1.82 (0.55 to 3.11)**	NA
≥6 months	0.19 (-0.34 to 0.71)	0.39 (-0.18 to 0.99)	NA	NA	-0.28 (-1.91 to 1.34)	NA
Stage of disease						
Painful freezing phase	-0.11 (-1.01 to 0.8)	**4.07 (3.17 to 4.98)**	**1.67 (0.39 to 2.95)**	**5.65 (4.58 to 6.72)**	**3.98 (2.9 to 5.05)**	1.26 (-0.23 to 2.78)
Adhesive phase	**5.12 (4.07 to 6.19)**	**0.89 (0.24 to 1.46)**	2.22 (-0.17 to 4.58)	NA	0.52 (-0.41 to 1.44)	NA
Analgesics use						
Allowed	0.14 (-0.74 to 1)	0.51 (-0.26 to 1.28)	1.84 (-0.10 to 3.69)	0.43 (-0.81 to 1.65)	0.55 (-0.57 to 1.67)	NA
No	**2.99 (2.09 to 3.88)**	**4.10 (3.20 to 5.00)**	**1.99 (0.74 to 3.23)**	NA	**3.34 (2.31 to 4.38)**	0.00 (-1.56 to 1.57)
Self-exercise						
Yes	**2.55 (1.8 to 3.3)**	**2.42 (1.73 to 3.10)**	**1.78 (0.66 to 2.89)**	-0.41 (-1.78 to 0.94)	**2.16 (1.37 to 2.96)**	-0.05 (-1.59 to 1.47)
No	0.13 (-1.89 to 2.15)	1.47 (-0.13 to 3.03)	NA			
Gender ratio						
Female<0.5	**7.97 (6.59 to 9.34)**	**8.33 (6.96 to 9.71)**	**2.56 (1.31 to 3.82)**	NA	**3.57 (2.55 to 4.57)**	NA
Female≥0.5	-0.25 (-1.04 to 0.53)	0.44 (-0.33 to 1.21)	0.15 (-0.96 to 1.28)	-0.07 (-1.59 to 1.45)	-0.12 (-1.05 to 0.82)	0.02 (-1.48 to 1.53)
Treatment duration						
<6 months	0.06 (-0.82 to 0.92)	0.37 (-0.50 to 1.24)	**1.33 (0.17 to 2.41)**	0.09 (-0.97 to 1.19)	0.03 (-1.49 to 1.57)	0.84 (-0.53 to 2.24)
6-12 months	**6.39 (5.27 to 7.51)**	**6.97 (5.80 to 8.14)**	**3.33 (1.69 to 4.94)**	NA	**5.26 (4.07 to 6.44)**	NA
Diabetes						
Including diabetes	0.32 (-0.26 to 0.84)	0.54 (-0.14 to 1.17)	NA	NA	0.06 (-0.70 to 0.77)	NA
No diabetes	**2.83 (1.97 to 3.68)**	**3.20 (2.41 to 3.98)**	**1.91 (0.82 to 3.00)**	-1.23 (-3.73 to 1.27)	**2.90 (2.04 to 3.75)**	-0.01 (-1.54 to 1.50)

sw vs. pl						
Overall analysis	**2.33 (1.41 to 3.26)**	**3.89 (2.80 to 4.97)**	**2.32 (1.02 to 3.62)**	**4.18 (2.88 to 5.47)**	**3.28 (2.19 to 4.38)**	**0.62 (1.24 to 2.51)**
Time of assessment						
≤0.5 month	0.98 (-1.11 to 3.08)	NA	NA	NA	NA	NA
0.5-1 month	**2.37 (1.37 to 3.37)**	**3.84 (2.62 to 5.06)**	**1.02 (0.2 to 1.84)**	**3.53 (2.3 to 4.75)**	**3.8 (2.6 to 5)**	0.36 (-1.45 to 2.15)
1-2 months	**1.92 (0.38 to 3.47)**	**4.95 (3.35 to 6.54)**	1.43 (-0.12 to 3.01)	**2.31 (0.61 to 3.97)**	1.05 (-0.9 to 3.01)	0.62 (-0.24 to 1.47)
2-3 months	1.97 (-0.46 to 4.36)	**6.93 (4.40 to 9.47)**	2.69 (-0.32 to 5.68)	**4.94 (1.92 to 7.98)**	NA	NA
3-6 months	**3.04 (2.1 to 3.93)**	**3.06 (1.87 to 4.25)**	**1.90 (0.07 to 3.75)**	**4.45 (3.1 to 5.79)**	**5.86 (4.45 to 7.26)**	NA
Analgesics use						
Allowed	**2.47 (1.41 to 3.51)**	**2.95 (1.87 to 4.01)**	1.21 (-0.16 to 2.6)	**6.4 (5.19 to 7.62)**	**4.42 (3.05 to 5.77)**	NA
No	**2.93 (1.65 to 4.21)**	**6.01 (4.31 to 7.7)**	**4.75 (2.8 to 6.66)**	NA	**1.94 (0.14 to 3.74)**	NA
Self-exercise						
Yes	**2.16 (0.94 to 3.36)**	**3.8 (2.56 to 5.03)**	1.22 (-0.66 to 3.12)	**6.41 (4.52 to 8.31)**	**3.34 (2.1 to 4.58)**	0.61 (-1.28 to 2.51)
No	2.02 (-0.21 to 4.29)	**5.6 (3.45 to 7.74)**	NA	NA	NA	NA
Gender ratio						
Female<0.5	**6.39 (3.89 to 8.87)**	NA	NA	NA	NA	NA
Female≥0.5	**1.83 (0.81 to 2.84)**	**3.5 (2.44 to 4.55)**	1.22 (-0.05 to 2.5)	**6.41 (4.5 to 8.32)**	**3.03 (1.78 to 4.27)**	0.62 (-1.26 to 2.5)
Treatment duration						
<6 months	**1.46 (0.21 to 2.74)**	**4.22 (2.76 to 5.68)**	NA	NA	-3.11 (-6.3 to 0.07)	NA
6-12 months	**3.05 (1.5 to 4.57)**	**3.7 (1.71 to 5.68)**	NA	NA	**7.61 (5.64 to 9.57)**	NA
Diabetes						
No diabetes	**2.63 (1.66 to 3.58)**	**4.15 (3.05 to 5.23)**	**2.46 (1.2 to 3.71)**	**6.41 (4.49 to 8.3)**	**3.68 (2.57 to 4.78)**	0.62 (-1.26 to 2.52)

Notes: significant subgroup analyses ($p<0.05$) are shown in bold.

NA=not applicable.

Supplementary Table 8. Subgroup analyses of pairwise meta-analyses for outcomes of pain and function

Comparison by Subgroup for Outcome of Pain	Studies, No.	SMD (95% CI)	Heterogeneity (I2)	Significance (P value)
ac vs. cpt				
Overall analysis		0.3 (-0.47 to 1.07)	82.00%	0.444
Time of assessment				
≤2 months	3	0.16 (-0.5 to 0.82)	76.00%	0.639
2-3 months	2	0.49 (-0.89 to 1.86)	89.60%	0.486
>3 months	1	-0.2 (-0.77 to 0.37)	NA	0.496
Stage of disease				
Painful freezing phase	2	0.49 (-0.89 to 1.86)	89.6%	0.486
Adhesive phase	1	-0.01 (-0.48 to 0.45)	NA	0.955
Analgesics use				
Allowed	1	1.2 (0.52 to 1.88)	NA	***0.001***
No	2	-0.09 (-0.45 to 0.27)	0.00%	0.633
Self-exercise				
Yes	2	-0.09 (-0.45 to 0.27)	0.00%	0.633
No	1	1.2 (0.52 to 1.88)	NA	0.001
Treatment duration				
<6 months	1	1.2 (0.52 to 1.88)	NA	***0.001***
6-12 months	2	-0.09 (-0.45 to 0.27)	0.00%	0.633
Diabetes				
Including diabetes	1	1.2 (0.52 to 1.88)	NA	***0.001***
No diabetes	2	-0.09 (-0.45 to 0.27)	0.00%	0.633
cpt vs. pl				
Overall analysis		0.28 (-0.09 to 0.67)	0.00%	0.141
Time of assessment				
≤2 months	3	0.3 (-0.08 to 0.68)	0.00%	0.117
2-3 months	1	0.3 (-0.27 to 0.86)	NA	0.302

Comparison by Subgroup for Outcome of Function	Studies, No.	SMD (95% CI)	Heterogeneity (I2)	Significance (P value)
ac vs. cpt				
Overall analysis		0.23 (-0.16 to 0.62)	43.40%	0.248
Time of assessment				
≤1 month	2	-0.25 (-0.93 to 0.43)	69.60%	0.470
1-2 months	2	0.53 (0.06 to 1)	0.00%	***0.026***
2-3 months	2	0.12 (-0.54 to 0.79)	59.20%	0.721
3-6 months	2	0.1 (-1.19 to 1.38)	87.10%	0.882
Stage of disease				
Painful freezing phase	3	0.31 (-0.26 to 0.89)	58.8%	0.281
Adhesive phase	1	0.23 (-0.16 to 0.62)	NA	0.758
Analgesics use				
Allowed	2	0.6 (0.13 to 1.07)	0.00%	***0.013***
No	2	-0.04 (-0.4 to 0.32)	0.00%	0.838
Self-exercise				
Yes	2	-0.04 (-0.4 to 0.32)	0.00%	0.838
No	2	0.6 (0.13 to 1.07)	0.00%	***0.013***
Treatment duration				
<6 months	1	0.47 (-0.16 to 1.1)	NA	0.140
6-12 months	3	0.16 (-0.33 to 0.65)	54.20%	0.513
Diabetes				
Including diabetes	1	0.47 (-0.16 to 1.1)	NA	0.140
No diabetes	3	0.16 (-0.33 to 0.65)	54.20%	0.513
cpt vs. pl				
Overall analysis		0.64 (-0.23 to 1.51)	84.50%	0.149

3-6 months	2	0.2 (-0.25 to 0.65)	0.00%	0.382
>6 months	2	0.2 (-0.27 to 0.68)	14.10%	0.403
Stage of disease				
Painful freezing phase	1	0.3 (-0.27 to 0.86)	NA	0.302
Adhesive phase	2	0.28 (-0.24 to 0.79)	0.00%	0.292
Analgesics use				
Allowed	1	0.07 (-0.68 to 0.82)	NA	0.853
No	2	0.36 (-0.08 to 0.8)	0.00%	0.110
Gender ratio				
Female<0.5	1	0.3 (-0.27 to 0.86)	NA	0.302
Female≥0.5	2	0.28 (-0.24 to 0.79)	0.00%	0.292
Treatment duration				
6-12 months	2	0.36 (-0.08 to 0.8)	0.00%	0.110
＞12 months	1	0.28 (-0.09 to 0.67)	NA	0.853
Diabetes				
Including diabetes	2	0.28 (-0.24 to 0.79)	0.00%	0.292
No diabetes	1	0.3 (-0.27 to 0.86)	NA	0.302
ds vs. si				
Overall analysis		0.5 (0.09 to 0.91)	74.30%	***0.017***
Time of assessment				
≤1 month	4	1 (-0.13 to 2.12)	95.00%	0.082
1-2 months	3	0.86 (-0.67 to 2.4)	96.30%	0.271
2-3 months	3	0.57 (-0.09 to 1.23)	85.20%	0.093
Stage of disease				
Painful freezing phase	3	0.8 (0.52 to 1.09)	16.30%	***0.000***
Adhesive phase	2	0.05 (-0.31 to 0.4)	8.40%	0.801
Analgesics use				
Allowed	1	0.22 (-0.25 to 0.69)	NA	0.360
No	4	0.56 (0.07 to 1.06)	77.90%	***0.024***
Self-exercise				
Yes	3	0.57 (-0.09 to 1.23)	85.20%	0.093
Time of assessment				
≤1 month	2	0.37 (-0.36 to 1.11)	59.60%	0.322
1-2 months	2	0.4 (-0.16 to 0.96)	40.60%	0.162
2-3 months	2	1.36 (0.65 to 2.06)	57.20%	***0.000***
3-6 months	2	0.41 (-0.69 to 1.52)	81.30%	0.466
>6 months	2	-0.07 (-0.67 to 0.54)	45.60%	0.824
Stage of disease				
Painful freezing phase	1	1.72 (1.06 to 2.38)	NA	***0.000***
Adhesive phase	2	-0.01 (-0.60 to 0.42)	0.0%	0.722
Analgesics use				
Allowed	2	0.43 (-0.73 to 1.58)	81.70%	0.468
No	2	0.85 (-0.85 to 2.56)	92.10%	0.326
Gender ratio				
Female<0.5	1	0.64 (-0.23 to 1.51)	NA	***0.000***
Female≥0.5	3	0.28 (-0.46 to 1.03)	71.00%	0.454
Treatment duration				
6-12 months	2	0.85 (-0.85 to 2.56)	92.10%	0.326
>12 months	1	-0.18 (-0.93 to 0.57)	NA	0.642
Diabetes				
Including diabetes	2	-0.09 (-0.6 to 0.42)	0.00%	0.722
No diabetes	2	1.36 (0.65 to 2.06)	57.20%	***0.000***
ds vs. si				
Overall analysis		0.04 (-0.19 to 0.27)	0.00%	0.732
Stage of disease				
Painful freezing phase	1	0.19 (-0.25 to 0.62)	NA	0.401
Adhesive phase	3	-0.02 (-0.29 to 0.25)	0.00%	0.905
Time of assessment				
≤1 month	2	0.19 (-0.21 to 0.6)	29.70%	0.349
1-2 months	4	0.14 (-0.19 to 0.48)	51.70%	0.394

No	2	0.36 (0.01 to 0.71)	0.00%	***0.047***
Treatment duration				
<6 months	3	0.8 (0.52 to 1.09)	16.30%	***0.000***
6-12 months	2	0.05 (-0.31 to 0.4)	8.40%	0.801
dt vs. si				
Overall analysis		1 (-0.44 to 2.45)	93.90%	0.171
Time of assessment				
≤2 months	3	0.91 (-0.44 to 2.27)	93.30%	0.185
2-3 months	2	1 (-0.44 to 2.45)	93.90%	0.171
>3 months	1	-0.17 (-0.52 to 0.19)	NA	0.364
Stage of disease				
Painful freezing phase	2	1.35 (-2.25 to 4.96)	96.00%	0.461
Adhesive phase	1	0.71 (0.18 to 1.25)	NA	***0.009***
Analgesics use				
Allowed	2	1.9 (-0.59 to 4.39)	91.10%	0.134
No	1	-0.42 (-0.78 to -0.06)	NA	***0.023***
Treatment duration				
<6 months	1	3.26 (1.87 to 4.65)	NA	***0.000***
6-12 months	2	0.13 (-0.98 to 1.24)	91.50%	0.820
Diabetes				
Including diabetes	1	0.71 (0.18 to 1.25)	NA	***0.009***
No diabetes	2	1.35 (-2.25 to 4.96)	96.00%	0.461
mn vs. cpt				
Overall analysis		0.65 (0.24 to 1.06)	59.60%	***0.002***
Stage of disease				
Painful freezing phase	2	1.16 (0.13 to 2.18)	68.6%	***0.027***
Adhesive phase	2	0.23 (-0.25 to 0.84)	50.3%	0.285
Self-exercise				
Yes	3	0.88 (0.26 to 1.49)	60.80%	***0.005***
No	2	0.38 (-0.33 to 1.1)	73.40%	0.294
2-3 months	2	0.05 (-0.28 to 0.37)	0.00%	0.783
>6 months	1	-0.2 (-0.67 to 0.27)	NA	0.405
Analgesics use				
Allowed	2	0.03 (-0.29 to 0.36)	0.00%	0.835
No	2	0.05 (-0.28 to 0.37)	0.00%	0.782
Self-exercise				
Yes	3	0.05 (-0.22 to 0.31)	0.00%	0.732
No	1	0.02 (-0.45 to 0.49)	NA	0.929
Treatment duration				
<6 months	1	0.19 (-0.25 to 0.62)	NA	0.401
6-12 months	3	-0.02 (-0.29 to 0.25)	0.00%	0.905
Diabetes				
Including diabetes	1	0.02 (-0.45 to 0.49)	NA	0.929
No diabetes	3	0.05 (-0.22 to 0.31)	0.00%	0.732
sc vs. cpt				
Overall analysis		0.84 (-0.18 to 1.86)	90.90%	0.107
Time of assessment				
≤2 months	4	1.65 (0.36 to 2.94)	93.40%	***0.012***
2-3 months	2	1.14 (-1.47 to 3.75)	96.90%	0.393
>3 months	3	0.66 (-0.56 to 1.87)	90.90%	0.289
Stage of disease				
Painful freezing phase	3	1.01 (-0.37 to 2.39)	93.8%	0.151
Adhesive phase	1	0.84 (-0.18 to 1.86)	NA	0.328
Analgesics use				

Gender ratio				
Female<0.5	2	0.7 (0.36 to 1.05)	0.00%	***0.000***
Female≥0.5	3	0.67 (-0.14 to 1.48)	78.70%	0.105
Treatment duration				
<6 months	3	0.92 (0.39 to 1.45)	51.30%	***0.001***
6-12 months	2	0.3 (-0.25 to 0.84)	50.30%	0.285
sc vs. cpt				
Overall analysis		0.27 (-0.05 to 0.59)	33.30%	0.098
Time of assessment				
≤2 months	5	0.61 (0.35 to 0.87)	0.00%	***0.000***
2-3 months	2	0.19 (-0.41 to 0.78)	59.20%	0.538
3-6 months	3	-0.13 (-0.67 to 0.41)	60.20%	0.644
>6 months	2	0.38 (-0.24 to 1)	53.40%	0.229
Stage of disease				
Painful freezing phase	3	0.25 (-0.13 to 0.62)	30.3%	0.195
Adhesive phase	1	-0.13 (-0.81 to 0.56)	NA	0.279
Analgesics use				
Allowed	2	0.18 (-0.32 to 0.68)	27.20%	0.482
No	3	0.34 (-0.15 to 0.84)	55.30%	0.177
Self-exercise				
Yes	3	0.09 (-0.31 to 0.5)	31.00%	0.651
No	2	0.52 (0.11 to 0.93)	0.00%	***0.013***
Gender ratio				
Female<0.5	1	0.51 (-0.08 to 1.09)	NA	0.089
Female≥0.5	4	0.21 (-0.17 to 0.59)	41.90%	0.279
Treatment duration				
<6 months	1	-0.1 (-0.61 to 0.4)	NA	0.692
6-12 months	2	0.44 (0.05 to 0.84)	0.00%	***0.027***
＞12 months	1	-0.13 (-0.81 to 0.56)	NA	0.716
Diabetes				
Allowed	2	0.63 (0.18 to 1.07)	7.50%	***0.006***
No	2	1.14 (-1.47 to 3.75)	96.90%	0.393
Self-exercise				
Yes	3	0.86 (-0.65 to 2.37)	93.80%	0.262
No	1	0.81 (0.26 to 1.36)	NA	0.004
Gender ratio				
Female<0.5	1	2.49 (1.72 to 3.26)	NA	***0.000***
Female≥0.5	3	0.32 (-0.29 to 0.93)	70.40%	0.308
Treatment duration				
≤6 months	1	-0.18 (-0.68 to 0.33)	NA	0.494
6-12 months	2	1.63 (-0.02 to 3.27)	91.70%	0.053
>12 months	1	0.34 (-0.35 to 1.03)	NA	0.328
Diabetes				
Including diabetes	3	0.32 (-0.29 to 0.93)	70.40%	0.308
No diabetes	1	2.49 (1.72 to 3.26)	NA	***0.000***
si vs. cpt				
Overall analysis		0.6 (-0.08 to 1.28)	85.00%	0.081
Stage of disease				
Painful freezing phase	2	1.01 (0.01 to 2.01)	83.00%	***0.049***
Adhesive phase	2	0.79 (0.10 to 1.48)	59.40%	***0.026***
Time of assessment				
≤2 months	4	1.21 (0.29 to 2.13)	89.10%	***0.010***
2-3 months	2	0.51 (-1.5 to 2.52)	95.40%	0.621
3-6 months	3	0.59 (-0.4 to 1.59)	86.70%	0.240
>6 months	2	0.36 (-0.72 to 1.45)	88.00%	0.514
Analgesics use				
Allowed	4	0.38 (-0.31 to 1.06)	82.50%	0.283
No	1	1.54 (0.9 to 2.18)	NA	***0.000***

Including diabetes	4	0.21 (-0.17 to 0.59)	41.90%	0.279
No diabetes	1	0.27 (-0.05 to 0.59)	NA	0.089
sc vs. si				
Overall analysis		0.44 (0.08 to 0.8)	48.70%	0.017
Time of assessment				
≤2 months	5	0.53 (0.24 to 0.83)	25.10%	***0.000***
2-3 months	2	0.51 (-0.33 to 1.36)	59.70%	0.234
>3 months	4	0.05 (-0.26 to 0.37)	0.00%	0.740
Stage of disease				
Painful freezing phase	3	0.41 (-0.06 to 0.87)	64.10%	0.088
Adhesive phase	1	0.14 (-0.59 to 0.86)	NA	0.710
Analgesics use				
Allowed	3	0.34 (-0.14 to 0.82)	31.30%	0.166
No	2	0.52 (-0.12 to 1.15)	69.80%	0.109
Self-exercise				
Yes	4	0.53 (0.1 to 0.95)	47.40%	***0.014***
No	1	0.16 (-0.35 to 0.66)	NA	0.545
Gender ratio				
Female<0.5	1	0.15 (-0.44 to 0.74)	NA	0.623
Female≥0.5	4	0.51 (0.09 to 0.94)	52.40%	***0.018***
Treatment duration				
<6 months	1	1.02 (0.11 to 1.94)	NA	0.028
6-12 months	3	0.41 (-0.06 to 0.87)	64.10%	0.088
>12 months	1	0.14 (-0.59 to 0.86)	NA	0.710
Diabetes				
Including diabetes	2	0.15 (-0.27 to 0.56)	0.00%	0.479
No diabetes	3	0.63 (0.15 to 1.11)	50.00%	***0.010***
si vs. cpt				
Overall analysis		0.13 (-0.17 to 0.43)	0.00%	0.385
Time of assessment				
≤2 months	3	0.26 (-0.04 to 0.55)	0.000	0.091
Self-exercise				
Yes	3	0.46 (-0.77 to 1.7)	3	0.464
No	2	0.81 (0.25 to 1.37)	2	***0.005***
Gender ratio				
Female<0.5	1	1.54 (0.9 to 2.18)	NA	0.000
Female≥0.5	4	0.38 (-0.31 to 1.06)	82.50%	0.283
Treatment duration				
6-12 months	3	1.02 (0.47 to 1.58)	67.30%	***0.000***
>12 months	1	0.38 (-0.36 to 1.11)	NA	0.320
Diabetes				
Including diabetes	2	0.47 (0.04 to 0.9)	0.00%	***0.032***
No diabetes	3	0.7 (-0.48 to 1.88)	92.30%	0.244
si vs. pl				
Overall analysis		2.9 (1.28 to 4.52)	96.30%	***0.000***
Stage of disease				
Painful freezing phase	4	3.56 (1.62 to 5.49)	96.9%	***0.000***
Adhesive phase	1	0.21 (-0.58 to 1.00)	NA	0.598
Time of assessment				
≤1 month	3	0.61 (0.23 to 1)	23.90%	***0.002***
1-2 months	5	3.79 (1.69 to 5.89)	97.10%	***0.000***
2-3 months	5	3.56 (1.62 to 5.49)	96.90%	***0.000***
3-6 months	2	1.17 (-0.7 to 3.04)	91.80%	0.219
>6 months	2	0.46 (0.11 to 0.82)	0.00%	***0.010***
Analgesics use				
Allowed	3	0.65 (0.28 to 1.01)	16.30%	***0.001***
No	3	6.2 (1.71 to 10.7)	97.90%	***0.007***
Gender ratio				
Female<0.5	1	3.16 (2.28 to 4.03)	NA	***0.000***
Female≥0.5	4	0.74 (0.36 to 1.13)	33.20%	***0.000***

2-3 months	1	0.37 (-0.2 to 0.94)	NA	0.199
>3 months	3	-0.25 (-0.75 to 0.25)	63.00%	0.324
Stage of disease				
Painful freezing phase	2	0.29 (-0.09 to 0.67)	0.00%	0.136
Adhesive phase	1	-0.25 (-0.99 to 0.48)	NA	0.504
Analgesics use				
Allowed	2	0.06 (-0.38 to 0.5)	6.20%	0.786
No	2	0.19 (-0.22 to 0.61)	0.00%	0.360
Self-exercise				
Yes	2	0.11 (-0.5 to 0.71)	42.10%	0.730
No	2	0.12 (-0.27 to 0.52)	0.00%	0.536
Gender ratio				
Female<0.5	1	0.37 (-0.2 to 0.94)	NA	0.199
Female≥0.5	3	0.04 (-0.31 to 0.39)	0.00%	0.818
Treatment duration				
6-12 months	2	0.29 (-0.09 to 0.67)	0.00%	0.136
＞12 months	1	-0.25 (-0.99 to 0.48)	NA	0.504
Diabetes				
Including diabetes	3	0.13 (-0.17 to 0.43)	0.00%	0.818
No diabetes	1	0.37 (-0.2 to 0.94)	NA	0.199
si vs. pl				
Overall analysis		2.88 (1.05 to 4.72)	96.70%	***0.002***
Time of assessment				
≤1 month	2	0.92 (-0.4 to 2.23)	86.90%	0.172
1-2 months	5	3.11 (1.29 to 4.93)	96.50%	***0.001***
2-3 months	4	3.92 (1.61 to 6.23)	97.40%	***0.001***
>3 months	3	0.28 (-0.15 to 0.71)	38.70%	0.203
Stage of disease				
Painful freezing phase	3	0.72 (0.39 to 1.04)	0.0%	***0.000***
Adhesive phase	2	8.60 (-8.75, 25.9)	99.2%	0.331
Analgesics use				
Treatment duration				
<6 months	2	0.99 (0.59 to 1.39)	0.00%	***0.000***
6-12 months	2	9.01 (-2.59 to 20.61)	98.60%	0.128
>12 months	1	0.21 (-0.57 to 1)	NA	0.598
Diabetes				
Including diabetes	2	0.63 (-0.02 to 1.28)	53.30%	0.056
No diabetes	4	4.57 (1.64 to 7.5)	97.60%	***0.002***
si vs. sc				
Overall analysis		-0.49 (-0.98 to 0)	52.80%	***0.049***
Stage of disease				
Painful freezing phase	2	-0.55 (-1.27 to 0.16)	68.6%	0.131
Adhesive phase	1	0.03 (-0.69 to 0.76)	NA	0.927
Time of assessment				
1-2 months	4	-1.06 (-2.02 to -0.11)	86.30%	***0.030***
2-3 months	2	-0.96 (-1.48 to -0.45)	0.00%	***0.000***
3-6 months	3	-0.01 (-0.35 to 0.33)	0.00%	0.934
>6 months	2	0.33 (-0.16 to 0.82)	0.00%	0.188
Analgesics use				
Allowed	3	-0.31 (-0.81 to 0.19)	37.10%	0.224
No	1	-0.94 (-1.57 to -0.32)	NA	***0.003***
Self-exercise				
Yes	3	-0.62 (-1.29 to 0.05)	58.60%	0.068
No	1	-0.21 (-0.72 to 0.3)	NA	0.418
Gender ratio				
Female<0.5	1	-0.94 (-1.57 to -0.32)	NA	***0.003***
Female≥0.5	3	-0.31 (-0.81 to 0.19)	37.10%	0.224

Allowed	2	0.28 (-0.49 to 1.04)	66.30%	0.480
No	3	5.87 (1.66 to 10.07)	98.20%	***0.006***
Gender ratio				
Female<0.5	1	0.67 (0.08 to 1.26)	NA	***0.027***
Female≥0.5	3	0.54 (-0.12 to 1.19)	65.40%	0.108
Treatment duration				
<6 months	2	0.79 (0.27 to 1.3)	32.50%	***0.003***
≥6 months	3	5.42 (1.09 to 9.76)	98.30%	***0.014***
Diabetes				
Including diabetes	2	0.28 (-0.49 to 1.04)	66.30%	0.480
No diabetes	3	5.87 (1.66 to 10.07)	98.20%	***0.006***
st vs. cpt				
Overall analysis	3	-0.14 (-0.69 to 0.41)	71.00%	0.622
Time of assessment				
≤1 month	3	-0.64 (-0.94 to -0.34)	0.00%	***0.000***
2-3 months	2	0.14 (-0.22 to 0.50)	0.00%	0.440
3-6 months	2	0.78 (0.41 to 1.16)	0.00%	***0.000***
>6 months	2	0.95 (0.58 to 1.33)	0.00%	***0.000***
us vs. cpt				
Overall analysis		0.32 (-0.03 to 0.67)	0.00%	0.069
Time of assessment				
≤2 months	3	0.39 (0.04 to 0.74)	0.00%	***0.030***
2-3 months	2	0.22 (-0.18 to 0.61)	0.00%	0.284
>3 months	1	0.92 (0.16 to 1.67)	NA	***0.018***
Stage of disease				
Painful freezing phase	2	0.49 (0.04 to 0.93)	0.00%	***0.032***
Adhesive phase	1	0.07 (-0.5 to 0.63)	NA	0.820
Analgesics use				
Allowed	1	0.7 (-0.04 to 1.44)	NA	0.064
Treatment duration				
<6 months	1	-1 (-1.91 to -0.09)	NA	***0.032***
6-12 months	2	-0.55 (-1.27 to 0.16)	68.60%	0.131
>12 months	1	0.03 (-0.69 to 0.76)	NA	0.927
Diabetes				
Including diabetes	2	-0.13 (-0.55 to 0.29)	0.00%	0.542
No diabetes	2	-0.96 (-1.48 to -0.45)	0.00%	***0.000***
st vs. cpt				
Overall analysis				
Time of assessment				
≤1 month	3	1.89 (1.54 to 2.24)	0.00%	***0.000***
2-3 months	2	2.06 (1.61 to 2.5)	0.00%	***0.000***
3-6 months	2	2.37 (1.9 to 2.84)	0.00%	***0.000***
>6 months	2	2.7 (2.2 to 3.2)	0.00%	***0.000***
us vs. cpt				
Overall analysis		-0.11 (-0.55 to 0.33)	35.50%	0.624
Time of assessment				
≤1 month	3	0.3 (-0.03 to 0.62)	0.00%	0.075
1-2 months	1	-0.63 (-1.36 to 0.11)	NA	0.095
2-3 months	3	0.07 (-0.25 to 0.39)	0.00%	0.665
3-6 months	1	-0.25 (-0.97 to 0.47)	NA	0.489
Stage of disease				
Painful freezing phase	2	-0.06 (-0.62 to 0.5)	NA	0.824
Adhesive phase	1	-0.18 (-0.98 to 0.63)	67.60%	0.669
Analgesics use				
Allowed	1	-0.63 (-1.36 to 0.11)	NA	0.095

No	2	0.22 (-0.18 to 0.61)	0.00%	0.284	No	2	0.07 (-0.33 to 0.46)	0.00%	0.729
Self-exercise					Self-exercise				
Yes	2	0.33 (-0.28 to 0.95)	44.10%	0.286	Yes	2	-0.29 (-0.83 to 0.25)	29.50%	0.290
No	1	0.37 (-0.19 to 0.93)	NA	0.199	No	1	0.2 (-0.36 to 0.76)	NA	0.478
Diabetes					Diabetes				
Including diabetes	1	0.07 (-0.5 to 0.63)	NA	0.820	Including diabetes	1	-0.06 (-0.62 to 0.5)	NA	0.824
No diabetes	2	0.49 (0.04 to 0.93)	0.00%	***0.032***	No diabetes	2	-0.18 (-0.98 to 0.63)	67.60%	0.669

Notes: significant subgroup analyses ($p<0.05$) are shown in bold. NA=not applicable.

Supplementary Table 9. Subgroup analyses of pairwise meta-analyses for outcomes of passive ranges of motion

Comparison by Subgroup for Passive flexion	Studies, No.	SMD (95% CI)	Heterogeneity (I2)	Significance (P value)
ds vs. si				
Overall analysis		-0.14 (-0.47 to 0.19)	15.50%	0.401
Time of assessment				
≤1 month	1	-0.25 (-0.74 to 0.25)	NA	0.325
1-2 months	2	-0.21 (-0.55 to 0.12)	NA	0.207
2-3 months	1	-0.43 (-0.92 to 0.07)	NA	0.09
3-6 months	1	0.2 (-0.48 to 0.89)	NA	0.562
Analgesics use				
Allowed	2	0.02 (-0.36 to 0.39)	0.00%	0.931
No	1	-0.43 (-0.92 to 0.07)	NA	0.09
dt vs. si				
Overall analysis		-0.21 (-0.74 to 0.33)	67.70%	0.452
Time of assessment				
≤1 month	2	0.22 (-0.28 to 0.73)	61.10%	0.388
2-3 months	2	0.08 (-0.21 to 0.38)	NA	0.59
3-6 months	3	-0.16 (-0.68 to 0.37)	66.60%	0.562
Analgesics use				
Allowed	2	-0.3 (-1.45 to 0.85)	83.80%	0.61
No	1	-0.16 (-0.51 to 0.2)	NA	0.395
Diabetes				
Including diabetes	1	-0.21 (-0.74 to 0.33)	NA	0.34
No diabetes	2	-0.46 (-1.2 to 0.28)	68.40%	0.221
Stage of disease				
Painful freezing phase	1	-0.16 (-0.51 to 0.2)	NA	0.395

Comparison by Subgroup for Passive abduction	Studies, No.	SMD (95% CI)	Heterogeneity (I2)	Significance (P value)
ds vs. si				
Overall analysis		0.22 (-0.08 to 0.52)	NA	0.148
Time of assessment				
≤1 month	2	0.36 (0.01 to 0.7)	0.00%	***0.041***
1-2 months	3	0.16 (-0.11 to 0.43)	0.00%	0.252
2-3 months	1	0.09 (-0.4 to 0.58)	NA	0.709
3-6 months	1	0.45 (-0.25 to 1.14)	NA	0.205
Analgesics use				
Allowed	3	0.22 (-0.08 to 0.52)	NA	0.143
No	1	0.09 (-0.4 to 0.58)	NA	0.709
Self-exercise				
Yes	3	0.12 (-0.18 to 0.42)	NA	0.439
No	1	0.36 (-0.12 to 0.83)	NA	0.138
mn vs. cpt				
Overall analysis		0.4 (-0.03 to 0.83)	45.10%	0.071
Self-exercise				
Yes	1	0.78 (0.1 to 1.46)	NA	***0.025***
No	2	0.25 (-0.19 to 0.69)	33.60%	0.263
Gender ratio				
Female<0.5	1	0.09 (-0.31 to 0.48)	NA	0.672
Female≥0.5	2	0.66 (0.19 to 1.12)	NA	***0.005***
Treatment duration				
<6 months	1	0.78 (0.1 to 1.46)	NA	***0.025***
6-12 months	1	0.55 (-0.08 to 1.18)	NA	0.088

Adhesive phase	2	-0.3 (-1.45 to 0.85)	83.80%	0.61
mn vs. cpt				
Overall analysis		0.41 (-0.1 to 0.92)	59.10%	0.113
Self-exercise				
Yes	1	1 (0.31 to 1.7)	NA	***0.005***
No	2	0.16 (-0.17 to 0.49)	0.00%	0.349
Gender ratio				
Female<0.5	2	0.5 (-0.37 to 1.38)	79.50%	0.261
Female≥0.5	1	0.31 (-0.32 to 0.93)	NA	0.338
Treatment duration				
<6 months	1	1 (0.31 to 1.7)	NA	***0.005***
6-12 months	1	0.31 (-0.32 to 0.93)	NA	0.338
sc vs. cpt				
Overall analysis		1.13 (-0.48 to 2.74)	95.20%	0.17
Time of assessment				
≤1 month	1	0.48 (-0.04 to 0.99)	NA	0.068
1-2 months	2	1.99 (-1.88 to 5.86)	97.90%	0.313
2-3 months	1	3.27 (2.38 to 4.16)	NA	0
3-6 months	2	1.35 (-1.06 to 3.77)	96.20%	0.272
>6 months	1	1.91 (1.21 to 2.6)	NA	0
Analgesics use				
Allowed	1	0.04 (-0.48 to 0.56)	NA	0.88
No	2	1.72 (-1.29 to 4.72)	97.10%	0.263
Self-exercise				
Yes	2	1.72 (-1.29 to 4.72)	97.10%	0.263
sc vs. cpt				
Overall analysis		0.88 (-0.39 to 2.14)	94.10%	0.173
Time of assessment				
≤1 month	1	0.66 (0.14 to 1.18)	NA	***0.013***
1-2 months	3	1.27 (-0.75 to 3.28)	96.20%	0.219
2-3 months	2	1.87 (-1.6 to 5.34)	97.60%	0.290
3-6 months	2	1.25 (-1.72 to 4.22)	97.30%	0.408
>6 months	2	1.2 (0.1 to 2.29)	81.90%	***0.032***
Analgesics use				
Allowed	1	0.04 (-0.49 to 0.56)	NA	0.896
No	3	1.2 (-0.68 to 3.07)	95.80%	0.211
Self-exercise				
Yes	2	1.87 (-1.6 to 5.34)	97.60%	0.290
No	2	-0.01 (-0.41 to 0.39)	NA	0.960
Gender ratio				
Female<0.5	1	3.67 (2.72 to 4.62)	NA	***0.000***
Female≥0.5	3	0.04 (-0.27 to 0.36)	NA	0.791
Treatment duration				
<6 months	1	0.13 (-0.38 to 0.63)	NA	0.623
6-12 months	2	1.83 (-1.73 to 5.39)	97.70%	0.314
Diabetes				
Including diabetes	3	0.04 (-0.27 to 0.36)	NA	0.791
No diabetes	1	3.67 (2.72 to 4.62)	NA	***0.000***
sc vs. si				
Overall analysis		0.81 (-0.19 to 1.81)	84.40%	0.112
Time of assessment				
>6 months	2	1.51 (-0.14 to 3.16)	87.40%	0.074

No	1	0.04 (-0.48 to 0.56)	NA	0.88
Gender ratio				
Female<0.5	1	3.27 (2.38 to 4.16)	NA	0
Female≥0.5	2	0.13 (-0.24 to 0.49)	NA	0.498
Treatment duration				
<6 months	1	0.21 (-0.3 to 0.71)	NA	0.425
6-12 months	2	1.64 (-1.53 to 4.8)	97.40%	0.311
Diabetes				
Including diabetes	2	0.13 (-0.24 to 0.49)	NA	0.498
No diabetes	1	3.27 (2.38 to 4.16)	NA	0
sc vs. si				
Overall analysis		1.25 (-0.61 to 3.11)	94.50%	0.187
Time of assessment				
>6 months	2	2.21 (-0.7 to 5.12)	94.80%	0.136
1-2 months	3	1.68 (-0.47 to 3.82)	95.30%	0.125
2-3 months	2	1.91 (-0.56 to 4.39)	93.50%	0.13
3-6 months	2	1.69 (-2.01 to 5.39)	97.80%	0.37
Analgesics use				
Allowed	2	0.22 (-0.4 to 0.84)	38.90%	0.489
No	1	3.18 (2.28 to 4.08)	NA	0
Self-exercise				
Yes	2	1.91 (-0.56 to 4.39)	93.50%	0.13
No	1	-0.01 (-0.52 to 0.5)	NA	0.965
Gender ratio				
1-2 months	3	1.37 (-0.42 to 3.14)	94.00%	0.133
2-3 months	2	1.31 (0.77 to 1.85)	0.00%	***0.000***
3-6 months	2	0.59 (-1.69 to 2.87)	96.40%	0.614
Analgesics use				
Allowed	2	0.53 (-0.7 to 1.76)	81.30%	0.401
No	1	1.36 (0.7 to 2.02)	NA	***0.000***
Self-exercise				
Yes	2	1.31 (0.77 to 1.85)	NA	***0.000***
No	1	-0.04 (-0.55 to 0.47)	NA	0.880
Gender ratio				
Female<0.5	1	1.36 (0.7 to 2.02)	NA	***0.000***
Female≥0.5	2	0.53 (-0.7 to 1.76)	64.62%	0.401
Treatment duration				
<6 months	1	1.22 (0.28 to 2.16)	NA	***0.011***
6-12 months	2	0.64 (-0.73 to 2.01)	90.80%	0.357
Diabetes				
Including diabetes	1	-0.04 (-0.55 to 0.47)	NA	0.880
No diabetes	2	1.31 (0.77 to 1.85)	NA	***0.000***
si vs. cpt				
Overall analysis		0.49 (-0.56 to 1.53)	91.80%	0.362
Time of assessment				
≤1 month	1	-0.53 (-1.11 to 0.04)	NA	0.070
1-2 months	3	0.44 (-0.24 to 1.11)	75.40%	0.203
2-3 months	2	0.91 (-1.78 to 3.6)	97.00%	0.509
3-6 months	2	0.61 (-0.06 to 1.28)	65.30%	0.075
>6 months	2	0.13 (-1.47 to 1.73)	92.70%	0.872
Analgesics use				
Allowed	2	-0.17 (-0.7 to 0.36)	47.40%	0.535
No	2	1.19 (-0.96 to 3.33)	95.10%	0.279

Female<0.5	1	3.18 (2.28 to 4.08)	0.00%	0
Female≥0.5	2	0.22 (-0.4 to 0.84)	38.90%	0.489
Treatment duration				
<6 months	1	0.65 (-0.23 to 1.53)	NA	0.147
6-12 months	2	1.56 (-1.56 to 4.69)	97.30%	0.328
Diabetes				
Including diabetes	1	-0.01 (-0.52 to 0.5)	NA	0.965
No diabetes	2	1.91 (-0.56 to 4.39)	93.50%	0.13

Comparison by Subgroup for Passive Internal Rotation	**Studies, No.**	**SMD (95% CI)**	**Heterogeneity (I2)**	**Significance (P value)**
ds vs. si				
Overall analysis		-0.11 (-0.38 to 0.16)	0.00%	0.415
Time of assessment				
≤1 month	2	0.02 (-0.32 to 0.36)	0.00%	0.904
1-2 months	4	-0.08 (-0.32 to 0.15)	0.00%	0.492
2-3 months	1	-0.16 (-0.65 to 0.33)	NA	0.518
Analgesics use				
Allowed	2	-0.09 (-0.42 to 0.23)	0.00%	0.582
No	1	-0.16 (-0.65 to 0.33)	NA	0.518
Self-exercise				
Yes	2	-0.17 (-0.51 to 0.16)	0.00%	0.308
No	1	0.01 (-0.46 to 0.48)	NA	0.978
Self-exercise				
Yes	2	0.91 (-1.78 to 3.6)	97.00%	0.508
No	2	0.09 (-0.3 to 0.49)	NA	0.642
Gender ratio				
Female<0.5	1	2.29 (1.56 to 3.02)	NA	***0.000***
Female≥0.5	3	-0.08 (-0.44 to 0.27)	16.10%	0.646
Diabetes				
Including diabetes	2	0.09 (-0.3 to 0.49)	NA	0.642
No diabetes	2	0.91 (-1.78 to 3.6)	97.00%	0.508
si vs.pl				
Overall analysis		4.8 (1.57 to 8.04)	97.60%	***0.004***
Time of assessment				
≤1 month	3	1.39 (0.14 to 2.63)	86.70%	***0.029***
1-2 months	3	4.38 (1.14 to 7.62)	96.70%	***0.008***
2-3 months	4	4.8 (1.57 to 8.04)	97.60%	***0.004***
3-6 months	1	2.69 (1.88 to 3.5)	NA	***0.000***
>6 months	1	-0.41 (-1 to 0.17)	NA	0.165
Analgesics use				
Allowed	1	0.63 (0.03 to 1.23)	NA	0.039
No	3	6.32 (1.93 to 10.71)	97.20%	***0.005***
Gender ratio				
Female<0.5	1	4.24 (3.18 to 5.3)	NA	***0.000***
Female≥0.5	2	1.4 (-0.18 to 2.97)	87.70%	0.083
Treatment duration				
<6 months	1	2.24 (1.31 to 3.18)	NA	***0.000***
6-12 months	2	8.53 (0.01 to 17.05)	97.80%	***0.050***

Comparison by Subgroup for Passive External Rotation	Studies, No.	SMD (95% CI)	Heterogeneity (I2)	Significance (P value)
cpt vs. pl				
Overall analysis		0.77 (0.04 to 1.49)	83.70%	***0.040***
Time of assessment				
≤1 month	2	0.28 (-0.51 to 1.06)	64.90%	0.492
1-2 months	3	0.08 (-1.27 to 1.43)	93.00%	0.911
2-3 months	2	1.45 (0.98 to 1.91)	0.00%	***0.000***
3-6 months	3	-0.64 (-2.41 to 1.14)	95.10%	0.482
>6 months		-0.13 (-1.27 to 1.01)	90.00%	0.821
Analgesics use				
Allowed	3	0.85 (-0.15 to 1.84)	85.30%	0.095
No	2	0.64 (-0.87 to 2.14)	90.30%	0.409
Stage of disease				
Painful freezing phase	1	1.40 (0.77 to 2.02)	NA	***0.000***
Adhesive phase	3	0.30 (-0.72 to 1.32)	85.9%	0.560
Gender ratio				
Female<0.5	2	1.31 (0.9 to 1.72)	0.00%	***0.000***
Female≥0.5	3	0.37 (-0.76 to 1.5)	86.80%	0.520
Treatment duration				
<6 months	1	1.24 (0.69 to 1.79)	NA	***0.000***
6-12 months	2	0.64 (-0.87 to 2.14)	90.30%	0.409
>12 months	1	-0.26 (-1.02 to 0.49)	NA	0.491
Diabetes				
Including diabetes	2	-0.2 (-0.71 to 0.31)	0.00%	0.447
No diabetes	3	1.36 (1.01 to 1.72)	0.00%	***0.000***
ds vs. si				
Overall analysis		0.09 (-0.17 to 0.34)	NA	0.502
Self-exercise				
Yes	3	0.53 (-1.23 to 2.3)	95.10%	0.555
No	1	0.59 (0.06 to 1.12)	NA	0.028
Gender ratio				
Female<0.5	1	2.28 (1.55 to 3)	NA	***0.000***
Female≥0.5	3	-0.02 (-0.83 to 0.8)	81.30%	0.967
Treatment duration				
>12 months	1	0.07 (-0.67 to 0.8)	NA	0.858
6-12 months	2	1.42 (-0.24 to 3.07)	92.60%	0.093
Diabetes				
Including diabetes	2	0.39 (-0.11 to 0.89)	23.10%	0.123
No diabetes	2	0.77 (-2.17 to 3.71)	97.50%	0.609
si vs. pl				
Overall analysis		2.68 (0.58 to 4.77)	97.00%	***0.012***
Time of assessment				
≤1 month	2	0.39 (-0.36 to 1.14)	59.40%	0.308
1-2 months	4	2.73 (0.45 to 5.01)	96.50%	***0.019***
2-3 months	4	3.44 (0.77 to 6.11)	97.30%	***0.012***
3-6 months	2	1.2 (-1.47 to 3.87)	95.70%	0.380
>6 months	1	0.12 (-0.46 to 0.7)	NA	0.690
week 1	1	0.42 (-0.32 to 1.17)	NA	0.264
Self-exercise				
Yes	2	0.23 (-0.52 to 0.99)	66.30%	0.546
No	3	4.46 (0.49 to 8.43)	97.70%	***0.028***

Time of assessment				
≤1 month	2	0.05 (-0.29 to 0.39)	0.00%	0.782
1-2 months	2	0.03 (-0.31 to 0.37)	0.00%	0.854
2-3 months	1	0.12 (-0.37 to 0.61)	NA	0.637
3-6 months	1	0.37 (-0.32 to 1.06)	NA	0.296
Analgesics use				
Allowed	3	0.08 (-0.22 to 0.37)	NA	0.617
No	1	0.12 (-0.37 to 0.61)	NA	0.637
Self-exercise				
Yes	3	0.15 (-0.15 to 0.45)	0.00%	0.333
No	1	-0.06 (-0.53 to 0.4)	NA	0.788
dt vs. si				
Overall analysis		0.47 (-0.57 to 1.51)	91.20%	0.378
Time of assessment				
≤1 month	2	0.48 (-0.06 to 1.02)	64.70%	0.082
2-3 months	2	0.84 (-0.31 to 1.99)	91.80%	0.154
3-6 months	3	0.28 (-0.61 to 1.16)	88.00%	0.539
Stage of disease				
Painful freezing phase	1	1.41 (1.01 to 1.81)	NA	0.000
Adhesive phase	2	0.10 (-0.54 to 0.56)	36.1%	0.971
Diabetes				
Including diabetes	1	0.24 (-0.28 to 0.76)	0.00%	0.373
No diabetes	2	0.56 (-1.15 to 2.28)	94.00%	0.518
sc vs. cpt				
Overall analysis		0.92 (-0.43 to 2.26)	94.50%	0.184
Time of assessment				
≤1 month	1	0.36 (-0.15 to 0.87)	NA	0.167
Gender ratio				
Female<0.5	2	6.37 (0.78 to 11.96)	97.00%	***0.026***
Female≥0.5	3	0.39 (-0.17 to 0.96)	53.70%	0.172
Treatment duration				
<6 months	1	0.78 (0.01 to 1.54)	NA	0.046
6-12 months	2	6.37 (0.78 to 11.96)	97.00%	***0.026***
>12 months	1	-0.16 (-0.81 to 0.48)	NA	0.620
Diabetes				
Including diabetes	1	-0.16 (-0.81 to 0.48)	NA	0.620
No diabetes	4	3.44 (0.77 to 6.11)	97.30%	***0.012***
sc vs. si				
Overall analysis		0.65 (-0.44 to 1.74)	91.80%	0.242
Time of assessment				
1-2 months	4	1.08 (-0.35 to 2.5)	93.50%	0.138
2-3 months	2	1.6 (1.04 to 2.17)	0.00%	***0.000***
3-6 months	3	0.33 (-0.66 to 1.33)	86.80%	0.513
>6 months	2	1.67 (0.82 to 2.52)	51.30%	***0.000***
Stage of disease				
Painful freezing phase	2	0.52 (-1.55 to 2.59)	96.5%	0.621
Adhesive phase	1	0.03 (-0.54 to 0.60)	NA	0.915
Analgesics use				
Allowed	3	0.3 (-0.73 to 1.33)	86.70%	0.567
No	1	1.59 (0.99 to 2.19)	NA	***0.000***
Self-exercise				
Yes	3	1.06 (-0.08 to 2.21)	87.70%	0.069
No	1	-0.53 (-1.01 to -0.04)	NA	***0.034***
Gender ratio				
Female<0.5	1	1.59 (0.99 to 2.19)	NA	***0.000***
Female≥0.5	3	0.3 (-0.73 to 1.33)	86.70%	0.567

1-2 months	3	1.74 (-0.49 to 3.97)	96.50%	0.126	Treatment duration				
2-3 months	2	1.8 (-2.15 to 5.76)	98.10%	0.372	<6 months	1	1.68 (0.67 to 2.69)	NA	***0.001***
3-6 months	3	1.07 (-0.77 to 2.91)	95.40%	0.252	6-12 months	2	0.52 (-1.55 to 2.59)	96.50%	0.621
>6 months	1	1.89 (1.2 to 2.59)	NA	***0.000***	>12 months	1	0.03 (-0.54 to 0.6)	NA	0.915
Stage of disease					Stage of disease				
Painful freezing phase	2	1.97 (-1.64 to 5.59)	97.6%	0.285	Painful freezing phase	2	0.52 (-1.55 to 2.59)	96.50%	0.621
Adhesive phase	1	0.10 (-0.58 to 0.78)	NA	0.776	Adhesive phase	1	0.35 (-0.86 to 1.57)	NA	0.915
Analgesics use					Diabetes				
Allowed	2	0.13 (-0.28 to 0.55)	NA	0.532	Including diabetes	2	-0.27 (-0.81 to 0.28)	53.20%	0.336
No	2	1.8 (-2.15 to 5.76)	98.10%	0.372	No diabetes	2	1.61 (1.09 to 2.13)	0.00%	***0.000***

Notes: significant subgroup analyses ($p<0.05$) are shown in bold. NA=not applicable.

Supplementary Table 10. Subgroup analyses of pairwise meta-analyses for outcomes of active ranges of motion

Comparison by Subgroup for Active Abduction	Studies, No.	SMD (95% CI)	Heterogeneity (I2)	Significance (P value)
ds vs. si				
Overall analysis		0.61 (-0.13 to 1.34)		0.109
Time of assessment				
≤1 month	2	0.78 (-0.05 to 1.62)	84.40%	0.067
1-2 months	1	0.16 (-0.29 to 0.61)	NA	0.490
2-3 months	1	1.29 (0.89 to 1.69)	NA	0.000
Analgesics use				
Allowed	1	0.16 (-0.29 to 0.61)	NA	0.490
No	2	0.83 (-0.1 to 1.76)	87.20%	0.081
Treatment duration				
<6 months	2	0.83 (-0.1 to 1.76)	87.20%	0.081
6-12 months	1	0.16 (-0.29 to 0.61)	NA	0.490
Diabetes				
Including diabetes	2	0.73 (-0.38 to 1.83)	92.60%	0.197
No diabetes	1	0.34 (-0.2 to 0.87)	NA	0.215
st vs. cpt		4.95 (1.98 to 7.92)		
Overall analysis			95.90%	***0.001***
Time of assessment				
≤1 month	2	2.39 (1.92 to 2.86)	0.00%	***0.000***
2-3 months	1	6.3 (5.05 to 7.55)	NA	***0.000***
3-6 months	2	9.82 (8.51 to 11.13)	0.00%	***0.000***
> 6 months	2	9.96 (8.63 to 11.29)	0.00%	***0.000***

Comparison by Subgroup for Active Flexion	Studies, No.	SMD (95% CI)	Heterogeneity (I2)	Significance (P value)
ds vs. si				
Overall analysis		0.47 (-0.07 to 1)	76.00%	0.086
Time of assessment				
≤1 month	2	0.83 (0.5 to 1.17)	9.80%	***0.000***
1-2 months	1	-0.03 (-0.48 to 0.42)	NA	0.883
2-3 months	1	0.82 (0.44 to 1.2)	NA	***0.000***
Analgesics use				
Allowed	1	-0.03 (-0.48 to 0.42)	NA	0.883
No	2	0.75 (0.44 to 1.06)	0.00%	0.000
Self-exercise				
Yes	2	0.4 (-0.44 to 1.24)	87.70%	0.346
No	1	0.6 (0.06 to 1.14)	NA	***0.029***
Treatment duration				
<6 months	2	0.75 (0.44 to 1.06)	0.00%	***0.000***
6-12 months	1	-0.03 (-0.48 to 0.42)	NA	0.883

Comparison by Subgroup for Active Internal Rotation	Studies, No.	SMD (95% CI)	Heterogeneity (I2)	Significance (P value)	Comparison by Subgroup for Active External Rotation	Studies, No.	SMD (95% CI)	Heterogeneity (I2)	Significance (P value)
ds vs. si					**ds vs. si**				
Overall analysis		0.23 (-0.02 to 0.48)	NA	0.069	Overall analysis		0.54 (-0.2 to 1.27)	87.20%	0.154
Time of assessment					Time of assessment				
≤1 month	2	0.47 (0.17 to 0.78)	0.00%	***0.002***	≤1 month	2	0.6 (-0.44 to 1.65)	90.00%	0.258
1-2 months	1	0.06 (-0.39 to 0.51)	NA	0.779	1-2 months	1	0.28 (-0.17 to 0.73)	NA	0.222
2-3 months	1	0.3 (-0.06 to 0.67)	NA	0.103	2-3 months	1	1.23 (0.83 to 1.63)	NA	***0.000***
Analgesics use					Analgesics use				
Allowed	1	0.06 (-0.39 to 0.51)	NA	0.779	Allowed	1	0.28 (-0.17 to 0.73)	NA	0.222
No	2	0.31 (0.01 to 0.61)	0.00%	***0.045***	No	2	0.66 (-0.5 to 1.81)	91.80%	0.264
Self-exercise					Self-exercise				
Yes	1	0.3 (-0.06 to 0.67)	NA	0.103	Yes	1	1.23 (0.83 to 1.63)	NA	***0.000***
No	2	0.17 (-0.17 to 0.51)	0.00%	0.334	No	2	0.19 (-0.16 to 0.53)	0.00%	0.289
Treatment duration					Treatment duration				
<6 months	2	0.31 (0.01 to 0.61)	0.00%	***0.045***	<6 months	2	0.66 (-0.5 to 1.81)	91.80%	0.264
6-12 months	1	0.06 (-0.39 to 0.51)	NA	0.779	6-12 months	1	0.28 (-0.17 to 0.73)	NA	0.222

Notes: significant subgroup analyses ($p<0.05$) are shown in bold. NA=not applicable.

Supplementary Table 11. Adverse effects reported by included studies.

Symptoms of adverse effects	Intervention	Included studies
Pain	Distension	Buchbinder et al, 2007; Gam-1998; Sharma-2016; Tveita et al, 2008
	Intra-articular steroid injection	Gam-1998; Prestgaard et al, 2015; Tveita et al, 2008
	Supervised exercise	Russell et al, 2014
	Acupuncture	Sun-2001
Muscle weakness	Distension	Ahn-2015
	Intra-articular steroid injection	Ahn-2015
Flushing	Distension	Sharma-2016
Allergy response	Bee venom	Koh et al, 2013
Stress fracture	Oral glucocorticoids	Buchbinder et al, 2004a
Paresthesias	Adalimumab	Schydlowsky et al, 2012
Raising liver enzymes	Adalimumab	Schydlowsky et al, 2012
Dizziness	Distension	Ahn-2015
	Intra-articular steroid injection	Ahn-2015
Synovitis	Intra-articular steroid injection	Ahn-2015

Supplementary Table 12. Egger test for each outcome.

Outcome	Egger's test (P value)
Pain	0.355
Function	0.414
Passive flexion	0.939
Passive abduction	
-Before analysis	0.026
-After analysis	0.689
Passive external rotation	0.138
Passive internal rotation	0.520
Active flexion	0.579
Active abduction	0.896
Active external rotation	0.497
Active internal rotation	0.849

Supplementary Table 13. Assessment of inconsistency results for each outcome.

a. Evaluation of the global inconsistency

Model	D	Number of data points	DIC	Test of global inconsistency
Mean Change in Pain Score				
Consistency	160.7	161	1562	P = 0.0002
Inconsistency	161.8	161	1628	
Mean Change in Function				
Consistency	160.3	143	1451	P = 0.0538
Inconsistency	160.3	143	1481	
Mean Change in Passive Flexion				
Consistency	78.23	78	737.2	P = 0.0009
Inconsistency	78.64	78	808.7	
Mean Change in Passive Abduction				
Consistency	102.7	101	1004	P = 0.003
Inconsistency	102	101	966.1	
Mean Change in Passive ER				
Consistency	124.9	117	1057	P = 0.1862
Inconsistency	119.4	117	1073	
Mean Change in Passive IR				
Consistency	56.62	56	459.1	P<0.0001
Inconsistency	54.43	56	485.1	
Mean Change in Active Flexion				
Consistency	37.23	37	351.6	P = 0.0800
Inconsistency	37	37	369.9	
Mean Change in Active Abduction				
Consistency	50.54	49	524.5	P = 0.2327
Inconsistency	49.63	49	567.5	
Mean Change in Active ER				
Consistency	46.16	46	408.5	P = 0.0262
Inconsistency	46.04	46	411.6	
Mean Change in Active IR				
Consistency	24.86	27	249.3	No source of
Inconsistency	24.79	27	264	inconsistency

b. Evaluation of local inconsistency using loop-specific heterogeneity estimates

(1) Mean overall change of pain score

Loop	IF	seIF	z value	P value	95% CI	τ^2
mn-si-ac-nb	85.15	20.56	4.14	0.00	(44.86,125.45)	98.72
si-ac-nn-nb	78.59	10.16	7.73	0.00	(58.68,98.51)	0.00
si-ac-pl-nb	67.40	9.62	7.01	0.00	(48.55,86.25)	0.00
cpt-ac-nb	61.35	13.57	4.52	0.00	(34.75,87.94)	58.63
mn-pl-ds	30.98	10.72	2.89	0.00	(9.98,51.98)	0.00
cpt-si-sc	27.63	4.97	5.56	0.00	(17.88,37.37)	0.00
cpt-pl-ds	27.62	12.06	2.29	0.02	(3.99,51.25)	34.34
mn-si-pl	26.96	11.34	2.38	0.02	(4.75,49.18)	31.94
mn-cpt-ls	26.12	15.22	1.72	0.09	(0.00,55.94)	105.49
mn-pl-oc	21.69	20.40	1.06	0.29	(0.00,61.68)	163.24
cpt-si-nb	20.64	16.25	1.27	0.20	(0.00,52.49)	69.49
si-nc-sc	20.31	8.23	2.47	0.01	(4.19,36.43)	31.78
cpt-pl-dm	17.07	7.19	2.37	0.02	(2.98,31.17)	0.60
mn-cpt-sw	16.30	15.48	1.05	0.29	(0.00,46.65)	105.62

mn-cpt-pl	16.14	9.81	1.65	0.10	(0.00,35.36)	27.59
cpt-si-pl	16.07	10.15	1.58	0.11	(0.00,35.95)	49.63
cpt-pl-sw	15.02	12.62	1.19	0.23	(0.00,39.76)	59.66
pl-oc-sw	14.00	8.22	1.70	0.09	(0.00,30.12)	0.00
cpt-si-oc-sw	13.54	18.04	0.75	0.45	(0.00,48.89)	69.49
cpt-ds-dm	12.50	7.70	1.62	0.10	(0.00,27.58)	0.00
mn-pl-sw	12.33	16.81	0.73	0.46	(0.00,45.28)	144.09
cpt-si-hy	11.78	14.67	0.80	0.42	(0.00,40.54)	69.49
si-sc-pl-st	11.57	7.36	1.57	0.12	(0.00,25.99)	4.53
si-ac-pl-nn	11.19	7.13	1.57	0.12	(0.00,25.18)	0.00
mn-cpt-ds	10.67	17.58	0.61	0.54	(0.00,45.12)	107.59
mn-cpt-ac	8.80	11.37	0.77	0.44	(0.00,31.07)	63.58
mn-sc-pl-st	8.20	15.16	0.54	0.59	(0.00,37.92)	43.05
cpt-pl-st	8.19	8.31	0.99	0.32	(0.00,24.47)	30.27
mn-si-sc	7.50	10.31	0.73	0.47	(0.00,27.71)	25.07
mn-cpt-si	7.28	10.36	0.70	0.48	(0.00,27.59)	59.09
cpt-si-ds	7.24	7.94	0.91	0.36	(0.00,22.80)	20.93
mn-si-ac-nn	6.50	15.05	0.43	0.67	(0.00,35.99)	62.08
cpt-si-us	6.25	10.98	0.57	0.57	(0.00,27.76)	56.88
mn-ac-pl	4.45	21.16	0.21	0.83	(0.00,45.91)	179.63
si-pl-ds	4.43	9.11	0.49	0.63	(0.00,22.29)	12.99
cpt-si-ac-nn	3.52	12.61	0.28	0.78	(0.00,28.23)	58.29
mn-oc-sw	3.05	20.14	0.15	0.88	(0.00,42.53)	140.48
mn-si-ds	2.18	11.51	0.19	0.85	(0.00,24.73)	13.36
si-pl-oc	1.50	6.49	0.23	0.82	(0.00,14.22)	0.00
cpt-sc-st	1.47	6.61	0.22	0.82	(0.00,14.43)	16.50
cpt-ac-pl	0.60	11.48	0.05	0.96	(0.00,23.09)	67.34
mn-si-oc	0.53	15.99	0.03	0.97	(0.00,31.87)	81.56
mn-cpt-sc	0.19	9.31	0.02	0.98	(0.00,18.44)	5.91
si-us-prp	0.00	5.65	0.00	1.00	(0.00,11.08)	0.00
pl-ds-dm	0.00	8.67	0.00	1.00	(0.00,16.99)	0.00

(2) Mean overall change of functional score

Loop	IF	seIF	z value	P value	95% CI	τ^2
mn-oc-sw	48.47	7.38	6.57	0.00	(34.01,62.93)	0.00
cpt-ac-nb	40.11	7.73	5.19	0.00	(24.96,55.26)	14.76
si-pl-oc-sw	36.26	4.53	8.00	0.00	(27.38,45.14)	0.00
cpt-sc-st	30.52	17.18	1.78	0.08	(0.00,64.18)	163.58
mn-pl-sw	29.39	4.67	6.29	0.00	(20.24,38.54)	0.00
mn-si-pl	26.15	7.81	3.35	0.00	(10.84,41.45)	20.08
mn-ac-pl	25.87	5.54	4.67	0.00	(15.01,36.72)	0.00
mn-cpt-pl	21.98	4.38	5.02	0.00	(13.39,30.56)	0.02
cpt-pl-st	21.31	14.76	1.44	0.15	(0.00,50.23)	162.41
mn-cpt-ds	18.32	14.38	1.27	0.20	(0.00,46.51)	42.08
mn-sc-pl-st	17.32	10.86	1.59	0.11	(0.00,38.61)	16.50
cpt-si-hy	14.20	6.27	2.26	0.02	(1.90,26.49)	17.66
mn-si-ds	14.03	8.52	1.65	0.10	(0.00,30.72)	4.79
mn-pl-ds	11.60	9.68	1.20	0.23	(0.00,30.57)	0.00
cpt-ds-dm	10.59	7.00	1.51	0.13	(0.00,24.30)	0.00
si-pl-dt	10.04	24.28	0.41	0.68	(0.00,57.62)	235.07
mn-si-oc	8.97	10.58	0.85	0.40	(0.00,29.71)	20.08
sc-si-pl-st	8.63	6.25	1.38	0.17	(0.00,20.87)	0.00
mn-si-hy	8.30	4.09	2.03	0.04	(0.29,16.32)	0.00
cpt-si-ds	7.90	7.37	1.07	0.28	(0.00,22.34)	25.91

cpt-pl-ds	6.92	18.74	0.37	0.71	(0.00,43.64)	148.87
mn-cpt-si	5.82	6.58	0.89	0.38	(0.00,18.72)	8.96
cpt-si-pl	5.66	9.95	0.57	0.57	(0.00,25.16)	54.21
cpt-sc-si	5.41	9.97	0.54	0.59	(0.00,24.94)	77.19
sc-si-nn-nc	4.73	3.37	1.40	0.16	(0.00,11.33)	0.00
mn-cpt-sc	4.47	12.97	0.34	0.73	(0.00,29.88)	85.47
mn-cpt-hy	4.04	5.08	0.80	0.43	(0.00,13.99)	3.17
cpt-ac-pl	2.61	6.27	0.42	0.68	(0.00,14.90)	11.64
cpt-si-us	2.39	10.94	0.22	0.83	(0.00,23.82)	58.88
mn-cpt-ac	2.23	6.41	0.35	0.73	(0.00,14.80)	12.35
mn-sc-si	0.70	6.93	0.10	0.92	(0.00,14.28)	23.02
si-pl-ds	0.64	4.65	0.14	0.89	(0.00,9.76)	0.00
cpt-pl-dm	0.52	6.69	0.08	0.94	(0.00,13.62)	0.00
pl-ds-dm	0.00	7.61	0.00	1.00	(0.00,14.91)	0.00
si-us-prp	0.00	5.67	0.00	1.00	(0.00,11.11)	0.00

(3) Mean overall change of passive flexion

Loop	IF	seIF	z value	P value	95% CI	τ^2
cpt-pl-sw	56.40	11.80	4.78	0.00	(33.28,79.52)	0.00
cpt-pl-ac	56.34	13.17	4.28	0.00	(30.53,82.15)	0.00
mn-cpt-pl-ls	52.37	17.33	3.02	0.00	(18.40,86.34)	66.47
cpt-si-us-pl	27.80	8.73	3.19	0.00	(10.69,44.91)	0.00
cpt-sc-si-us	25.48	11.71	2.18	0.03	(2.54,48.42)	0.00
cpt-si-pl-hy	17.01	8.88	1.92	0.06	(0.00,34.41)	0.00
cpt-sc-si-hy	14.69	11.82	1.24	0.21	(0.00,37.85)	0.00
mn-cpt-sc-st	12.38	15.19	0.82	0.42	(0.00,42.14)	51.91
cpt-si-us-hy	10.79	8.20	1.32	0.19	(0.00,26.86)	0.00
si-pl-oc-sw	6.30	13.80	0.46	0.65	(0.00,33.35)	0.00
cpt-sc-si-pl	2.32	12.19	0.19	0.85	(0.00,26.22)	0.00
cpt-pl-su	0.00	5.91	0.00	1.00	(0.00,11.58)	0.00
si-us-prp	0.00	5.43	0.00	1.00	(0.00,10.65)	0.00

(4) Mean overall change of passive abduction

Loop	IF	seIF	z value	P value	95% CI	τ^2
cpt-ac-pl	60.16	14.49	4.15	0.00	(31.75,88.56)	0.00
mn-cpt-st	40.63	8.97	4.53	0.00	(23.04,58.21)	14.51
si-pl-oc-sw	24.72	31.41	0.79	0.43	(0.00,86.27)	256.34
cpt-si-us	18.78	10.97	1.71	0.09	(0.00,40.28)	16.91
mn-cpt-pl	16.96	13.84	1.23	0.22	(0.00,44.07)	116.93
cpt-si-hy	13.17	7.04	1.87	0.06	(0.00,26.96)	0.00
cpt-pl-hy	11.48	8.55	1.34	0.18	(0.00,28.23)	0.00
cpt-si-ds	10.42	6.14	1.70	0.09	(0.00,22.47)	7.57
sc-si-pl	8.46	16.01	0.53	0.60	(0.00,39.83)	119.55
cpt-sc-pl	3.77	9.97	0.38	0.71	(0.00,23.30)	44.42
cpt-si-pl	2.77	10.77	0.26	0.80	(0.00,23.88)	77.49
si-dt-ds	1.54	5.70	0.27	0.79	(0.00,12.72)	14.10
sc-si-nc-nn	0.82	17.00	0.05	0.96	(0.00,34.13)	25.50
cpt-sc-si	0.71	8.70	0.08	0.94	(0.00,17.77)	42.37
si-pl-hy	0.38	8.17	0.05	0.96	(0.00,16.40)	0.00
si-us-prp	0.00	5.79	0.00	1.00	(0.00,11.35)	0.00

(5) Mean overall change of passive external rotation

Loop	IF	seIF	z value	P value	95% CI	τ^2
mn-pl-oc-sw	63.28	2.10	30.08	0.00	(59.15,67.40)	0.00
cpt-sc-st	38.79	16.34	2.37	0.02	(6.76,70.81)	164.99
mn-cpt-st	38.63	16.57	2.33	0.02	(6.14,71.11)	178.27
mn-cpt-oc-sw	36.92	6.57	5.62	0.00	(24.05,49.79)	0.00
mn-si-pl-oc	30.37	12.02	2.53	0.01	(6.81,53.94)	11.54
cpt-si-oc-sw	29.18	14.99	1.95	0.05	(0.00,58.56)	42.26
si-pl-oc-sw	22.17	23.61	0.94	0.35	(0.00,68.45)	55.65
mn-cpt-pl	21.78	8.52	2.56	0.01	(5.08,38.47)	16.80
mn-sc-pl-st	19.73	17.27	1.14	0.25	(0.00,53.58)	91.69
mn-pl-ls	19.12	4.58	4.18	0.00	(10.15,28.09)	0.00
cpt-pl-ac	17.11	13.99	1.22	0.22	(0.00,44.53)	17.90
cpt-si-us	17.04	9.58	1.78	0.08	(0.00,35.81)	33.59
cpt-si-hy	16.99	3.26	5.22	0.00	(10.60,23.38)	0.00
cpt-us-pl	14.52	9.39	1.55	0.12	(0.00,32.93)	17.90
si-pl-hy	8.59	7.28	1.18	0.24	(0.00,22.86)	8.91
mn-cpt-si-oc	8.47	13.10	0.65	0.52	(0.00,34.15)	39.75
cpt-pl-hy	8.36	5.63	1.49	0.14	(0.00,19.39)	7.51
cpt-si-ds	7.51	7.19	1.05	0.30	(0.00,21.61)	19.45
cpt-pl-sw	6.90	18.44	0.37	0.71	(0.00,43.05)	137.15
sc-si-pl	6.05	9.54	0.63	0.53	(0.00,24.74)	52.62
*si-us-prp	5.56	4.92	1.13	0.26	(0.00,15.20)	0.00
si-us-pl	4.97	6.74	0.74	0.46	(0.00,18.18)	18.11
si-dt-ds	4.72	8.57	0.55	0.58	(0.00,21.51)	41.18
cpt-pl-su	4.15	10.77	0.39	0.70	(0.00,25.26)	37.75
cpt-sc-pl	2.63	9.31	0.28	0.78	(0.00,20.88)	59.70
cpt-si-pl	2.62	3.16	0.83	0.41	(0.00,8.82)	0.00
si-nc-nn	2.30	4.49	0.51	0.61	(0.00,11.11)	0.00
cpt-sc-si	1.33	9.28	0.14	0.89	(0.00,19.51)	69.22

(6) Mean overall change of passive internal rotation

Loop	IF	seIF	z value	P value	95% CI	τ^2
mn-cpt-sc-st	22.75	8.35	2.72	0.01	(6.38,39.12)	0.00
mn-cpt-si-pl	20.09	8.24	2.44	0.02	(3.94,36.24)	0.00
cpt-si-hy	17.10	4.72	3.62	0.00	(7.85,26.35)	0.00
cpt-si-pl-ac	10.14	10.78	0.94	0.35	(0.00,31.26)	0.00
mn-cpt-pl-ac	9.95	9.10	1.09	0.27	(0.00,27.78)	0.00
cpt-si-us	9.60	6.45	1.49	0.14	(0.00,22.25)	0.00
cpt-si-ds	2.17	5.81	0.37	0.71	(0.00,13.55)	0.00
si-prp-us	0.00	4.40	0.00	1.00	(0.00,8.63)	0.00

(7) Mean overall change of active flexion

Loop	IF	seIF	z value	P value	95% CI	τ^2
mn-si-ds	31.57	10.48	3.01	0.00	(11.02,52.11)	0.00
cpt-si-us-ds	19.48	16.92	1.15	0.25	(0.00,52.65)	38.90
mn-cpt-si-us	13.12	12.43	1.06	0.29	(0.00,37.47)	0.00
mn-cpt-dm	0.00	16.85	0.00	1.00	(0.00,33.02)	0.00
si-prp-us	0.00	5.66	0.00	1.00	(0.00,11.08)	0.00
mn-cpt-ds	0.00	18.71	0.00	1.00	(0.00,36.66)	0.00
cpt-dm-ds	0.00	17.35	0.00	1.00	(0.00,34.00)	0.00
mn-dm-ds	0.00	14.91	0.00	1.00	(0.00,29.22)	0.00

(8) Mean overall change of active abduction

Loop	IF	seIF	z value	P value	95% CI	τ^2
mn-cpt-st	54.90	43.91	1.25	0.21	(0.00,140.96)	693.80
mn-si-ds	53.76	13.31	4.04	0.00	(27.68,79.84)	0.00
si-pl-ds	33.36	13.35	2.50	0.01	(7.21,59.52)	0.00
mn-pl-ds	30.24	17.87	1.69	0.09	(0.00,65.26)	0.00
mn-cpt-si-us	24.50	14.66	1.67	0.10	(0.00,53.24)	0.00
cpt-si-us-ds	22.93	29.46	0.78	0.44	(0.00,80.68)	202.20
mn-si-pl	9.84	10.68	0.92	0.36	(0.00,30.78)	0.00
*cpt-dm-ds	0.00	21.56	0.00	1.00	(0.00,42.26)	0.00
*mn-cpt-dm	0.00	20.39	0.00	1.00	(0.00,39.96)	0.00
*mn-dm-ds	0.00	19.15	0.00	1.00	(0.00,37.53)	0.00
*mn-cpt-ds	0.00	23.42	0.00	1.00	(0.00,45.91)	0.00
*prp-si-us	0.00	6.01	0.00	1.00	(0.00,11.79)	0.00

(9) Mean overall change of active external rotation

Loop	IF	seIF	z value	P value	95% CI	τ^2
mn-si-st	35.20	8.35	4.22	0.00	(18.84,51.56)	0.00
mn-ds-pl	30.10	13.33	2.26	0.02	(3.97,56.23)	0.00
mn-cpt-si	28.00	10.37	2.70	0.01	(7.67,48.33)	0.00
mn-ds-si	27.72	14.92	1.86	0.06	(0.00,56.97)	70.21
cpt-si-us	20.39	7.12	2.86	0.00	(6.43,34.36)	0.00
mn-si-pl	13.40	7.57	1.77	0.08	(0.00,28.23)	0.00
ds-si-pl	11.02	15.94	0.69	0.49	(0.00,42.26)	70.21
mn-cpt-st	7.20	11.95	0.60	0.55	(0.00,30.62)	0.00
dm-ds-si	0.28	16.52	0.02	0.99	(0.00,32.66)	70.21
*dm-ds-dm	0.00	12.99	0.00	1.00	(0.00,25.46)	0.00
*mn-ds-dm	0.00	11.35	0.00	1.00	(0.00,22.25)	0.00
*mn-dm-ds	0.00	14.20	0.00	1.00	(0.00,27.83)	0.00
*cpt-si-st	0.00	9.59	0.00	1.00	(0.00,18.79)	0.00
*si-prp-us	0.00	5.44	0.00	1.00	(0.00,10.65)	0.00
*mn-cpt-dm	0.00	13.07	0.00	1.00	(0.00,25.61)	0.00

(10) Mean overall change of active internal rotation

Comparisons	Direct		Indirect		Difference			τ^2
	SMD	SE	SMD	SE	SMD	SE	P value	
mn vs. st	.	.	.	.	.	.	.	.
mn vs. si	-4.00	1.95	1.74	74.02	-5.74	74.05	0.94	0.00
mn vs. pl	.	.	.	.	.	.	.	.
cpt vs. us	1.90	3.09	-4.25	80.16	6.15	80.22	0.94	0.00
cpt vs. cpm	12.60	5.37	20.47	1079.08	-7.87	1079.09	0.99	0.00
cpt vs. cr	9.00	0.98	20.20	169.40	-11.20	169.41	0.95	0.00
cpt vs. ac	10.10	6.77	20.17	1352.28	-10.07	1352.29	0.99	0.00
cpt vs. hy	-6.17	2.83	20.27	706.48	-26.44	706.48	0.97	0.00
ds vs. si	-3.59	1.95	-7.83	544.53	4.24	544.53	0.99	0.00
si vs. prp	7.20	2.34	19.26	153.87	-12.06	153.89	0.94	0.00
si vs. us	-4.20	2.35	1.95	77.98	-6.15	78.01	0.94	0.00
prp vs. us	-11.40	2.30	0.90	156.74	-12.30	156.75	0.94	0.00

c. Evaluation of the inconsistency by node-splitting model

(1) Mean overall change of pain score

Comparisons	Direct		Indirect		Difference			τ^2
	SMD	SE	SMD	SE	SMD	SE	P value	
mn vs. cpt	7.79	8.37	-3.25	4.78	11.04	9.63	0.25	10.84
mn vs. si	9.65	7.63	0.50	5.33	9.15	9.31	0.33	10.83
mn vs. sc	11.09	10.05	5.46	6.20	5.64	11.81	0.63	10.93
mn vs. ac	1.55	8.87	14.37	6.80	-12.82	11.18	0.25	10.89
mn vs. pl	3.77	10.40	14.69	5.10	-10.92	11.58	0.35	10.83
mn vs. oc	5.19	9.35	-2.65	7.98	7.84	12.30	0.52	10.91
mn vs. sw	26.48	8.01	24.74	7.33	1.73	10.86	0.87	10.99
mn vs. ls	8.02	8.05	27.64	11.64	-19.62	14.15	0.17	10.78
mn vs. ds	11.00	13.75	5.76	5.91	5.24	14.97	0.73	10.95
mn vs. ca	.	.	.	.	.	.	.	.
cpt vs. si	8.02	5.07	0.65	4.68	7.37	6.90	0.29	10.87
cpt vs. sc	4.22	5.57	12.34	6.70	-8.12	8.72	0.35	10.90
cpt vs. ac	2.99	6.61	18.21	6.98	-15.22	9.61	0.11	10.64
cpt vs. pl	10.24	5.41	16.08	5.52	-5.84	7.73	0.45	10.89
cpt vs. us	7.08	7.44	-4.72	11.99	11.80	14.11	0.40	10.93
cpt vs. st	-2.06	6.60	7.76	7.78	-9.83	10.20	0.34	10.88
cpt vs. sw	35.00	11.42	23.35	6.31	11.65	13.05	0.37	10.91
cpt vs. nb	17.50	12.01	-10.13	9.13	27.63	15.08	0.07	10.45
cpt vs. ls	26.40	10.81	6.70	9.15	19.70	14.16	0.16	10.78
cpt vs. hy	-6.64	12.13	1.36	12.60	-8.00	17.49	0.65	10.96
cpt vs. ds	13.76	8.43	4.02	5.74	9.74	10.20	0.34	10.88
cpt vs. dm	32.00	12.02	25.48	18.55	6.52	22.30	0.77	10.98
si vs. nc	-10.75	8.11	6.01	11.78	-16.75	14.30	0.24	10.82
si vs. sc	7.54	4.96	-5.08	7.23	12.61	8.78	0.15	10.72
si vs. pl	17.80	11.33	7.49	4.81	10.31	12.31	0.40	10.91
si vs. us	-8.00	11.45	3.80	8.26	-11.80	14.12	0.40	10.93
si vs. oc	-5.00	12.15	-2.03	7.50	-2.97	14.27	0.84	10.98
si vs. nn	-3.25	9.11	5.41	12.71	-8.66	15.64	0.58	10.95
si vs. nb	30.00	12.81	-19.97	8.54	49.97	15.40	0.00	9.91
si vs. hy	-3.00	12.10	-10.99	12.63	7.99	17.49	0.65	10.96
si vs. prp	13.00	11.40	36.59	25.75	-23.59	28.23	0.40	10.93
si vs. ds	2.68	4.62	4.47	8.75	-1.79	9.90	0.86	10.98
nc vs. sc	-1.00	10.97	15.77	9.19	-16.77	14.31	0.24	10.82
sc vs. st	-5.05	11.37	-5.66	7.07	0.61	13.38	0.96	11.00
ac vs. pl	8.07	11.43	1.30	6.48	6.77	13.13	0.61	10.96
ac vs. nn	-1.90	11.31	-10.56	10.80	8.66	15.64	0.58	10.95
ac vs. nb	-47.10	8.70	21.85	8.71	-68.95	12.31	0.00	8.32
pl vs. oc	-21.30	11.11	-7.60	7.54	-13.70	13.43	0.31	10.85
pl vs. st	-3.56	9.06	-15.53	7.00	11.97	11.45	0.30	10.86
pl vs. sw	9.86	8.33	15.27	7.19	-5.41	11.00	0.62	10.96
pl vs. ds	-20.00	12.02	-2.49	6.01	-17.51	13.44	0.19	10.80
pl vs. dm	9.00	11.85	37.12	19.04	-28.12	22.60	0.21	10.82
us vs. prp	21.00	11.37	-2.60	25.80	23.60	28.23	0.40	10.93
oc vs. sw	18.32	13.13	27.37	8.09	-9.05	15.42	0.56	10.93
ds vs. dm	29.00	11.92	6.27	19.99	22.73	23.46	0.33	10.88

(2) Mean overall change of functional score

Comparisons	Direct		Indirect		Difference			τ^2
	SMD	SE	SMD	SE	SMD	SE	P value	
mn vs. cpt	5.01	5.79	-1.72	5.15	6.73	7.74	0.38	10.21
mn vs. sc	15.16	8.37	14.87	6.50	0.29	10.60	0.98	10.30

mn vs. ac	10.35	8.44	9.48	6.39	0.88	10.59	0.93	10.30
mn vs. si	13.00	5.10	7.30	5.64	5.69	7.60	0.45	10.26
mn vs. pl	-1.00	10.42	21.69	4.95	-22.69	11.53	0.05	9.80
mn vs. oc	-9.80	12.19	12.61	8.20	-22.41	14.69	0.13	9.99
mn vs. hy	10.01	10.77	3.56	8.26	6.45	13.61	0.64	10.29
mn vs. sw	41.56	7.39	19.20	8.44	22.36	11.21	0.05	9.85
mn vs. ds	-0.30	12.83	11.16	5.70	-11.46	14.04	0.41	10.20
mn vs. ls	.	.	.	.	.	.	.	.
mn vs. ca	.	.	.	.	.	.	.	.
cpt vs. sc	8.00	5.64	23.48	7.34	-15.47	9.26	0.10	10.01
cpt vs. ac	3.65	5.39	17.92	7.44	-14.26	9.19	0.12	9.98
cpt vs. si	8.37	5.11	9.97	4.94	-1.60	7.10	0.82	10.29
cpt vs. us	-2.97	6.60	1.22	11.46	-4.19	13.23	0.75	10.30
cpt vs. pl	14.52	6.82	17.33	5.46	-2.80	8.73	0.75	10.28
cpt vs. hy	-1.27	7.69	14.63	9.90	-15.90	12.55	0.21	10.12
cpt vs. st	25.68	5.90	0.96	7.14	24.72	9.26	0.01	9.56
cpt vs. ds	12.07	7.97	5.39	6.42	6.68	10.25	0.51	10.26
cpt vs. nb	7.06	10.32	-30.91	10.47	37.97	14.71	0.01	9.50
cpt vs. cr	5.00	10.20	-2.56	91.85	7.56	92.42	0.94	10.19
cpt vs. dm	21.20	11.17	33.50	17.73	-12.30	21.09	0.56	10.26
sc vs. si	-5.90	5.90	-2.42	7.45	-3.48	9.53	0.72	10.29
sc vs. st	-12.36	11.21	7.20	6.83	-19.56	13.13	0.14	10.06
sc vs. nc	-2.20	10.34	-5.04	14.26	2.84	17.62	0.87	10.31
ac vs. pl	11.45	10.56	6.20	6.57	5.25	12.44	0.67	10.28
ac vs. nb	-36.15	9.53	1.84	11.21	-37.99	14.71	0.01	9.50
si vs. us	-8.30	10.85	-12.50	7.57	4.20	13.23	0.75	10.30
si vs. pl	11.68	10.32	5.97	4.94	5.71	11.45	0.62	10.28
si vs. oc	-14.30	10.82	1.83	9.15	-16.13	14.17	0.26	10.08
si vs. dt	7.86	6.19	13.74	12.82	-5.88	14.24	0.68	10.28
si vs. nn	-8.75	8.17	-6.24	15.56	-2.51	17.58	0.89	10.31
si vs. hy	1.11	7.51	-14.55	10.10	15.66	12.59	0.21	10.10
si vs. ds	0.02	5.43	-3.86	8.11	3.88	9.76	0.69	10.29
si vs. prp	13.10	10.81	4.71	24.07	8.39	26.45	0.75	10.30
us vs. prp	21.40	10.77	29.78	24.12	-8.38	26.45	0.75	10.30
pl vs. dt	6.10	11.93	0.16	7.79	5.94	14.25	0.68	10.28
pl vs. st	-10.03	7.87	7.01	7.02	-17.04	10.55	0.11	9.99
pl vs. sw	17.15	10.49	12.63	8.13	4.52	13.27	0.73	10.30
pl vs. ds	-10.90	11.25	-7.31	6.53	-3.60	13.01	0.78	10.29
pl vs. dm	8.90	11.17	7.40	18.61	1.50	21.81	0.95	10.30
oc vs. sw	6.87	9.32	46.45	9.68	-39.58	13.44	0.00	9.32
nn vs. nc	8.60	10.70	11.27	14.01	-2.67	17.63	0.88	10.31
ds vs. dm	19.80	11.13	7.38	19.45	12.42	22.51	0.58	10.26

(3) Mean overall change of passive flexion

Comparisons	Direct		Indirect		Difference			τ^2
	SMD	SE	SMD	SE	SMD	SE	P value	
mn vs. cpt	-9.42	7.67	8.27	13.90	-17.69	15.85	0.26	11.86
mn vs. st	-8.73	10.45	-8.92	19.06	0.20	21.74	0.99	12.79
mn vs. ls	17.49	12.38	-13.01	15.75	30.50	20.03	0.13	11.35
mn vs. sm	.	.	.	.	.	.	.	.
cpt vs. sc	3.30	13.11	19.68	13.09	-16.38	18.53	0.38	12.44
cpt vs. us	6.20	13.58	-1.13	16.42	7.33	21.31	0.73	12.74
cpt vs. pl	-24.00	8.41	17.36	7.10	-41.36	11.01	0.00	7.69

cpt vs. ac	20.00	15.10	-14.47	16.17	34.47	22.13	0.12	11.51
cpt vs. su	5.00	8.32	87.69	20.45	-82.69	22.01	0.00	7.69
cpt vs. hy	-0.89	13.56	5.51	16.62	-6.40	21.45	0.77	12.79
cpt vs. sw	55.10	14.85	21.36	12.62	33.74	19.48	0.08	11.26
sc vs. si	-13.98	15.45	7.06	14.10	-21.04	20.92	0.32	12.29
sc vs. st	-15.01	13.87	-14.81	16.75	-0.20	21.75	0.99	12.79
sc vs. nc	-5.80	12.29	-12.40	314.15	6.60	314.39	0.98	12.23
si vs. pl	-11.00	13.95	-2.59	12.68	-8.41	18.86	0.66	12.75
si vs. oc	-9.00	15.22	3.71	19.98	-12.71	25.12	0.61	12.66
si vs. hy	-4.90	13.36	-11.30	16.78	6.40	21.45	0.77	12.79
si vs. prp	13.50	13.13	28.13	40.53	-14.63	42.62	0.73	12.74
us vs. prp	22.10	13.10	7.44	40.57	14.66	42.63	0.73	12.74
pl vs. ac	-12.34	14.10	22.13	17.05	-34.47	22.13	0.12	11.51
pl vs. su	29.00	8.50	-53.71	20.23	82.71	22.02	0.00	7.69
pl vs. sw	22.70	13.30	45.90	14.45	-23.19	19.64	0.24	11.96
pl vs. ls	-2.00	11.88	28.51	16.13	-30.51	20.03	0.13	11.35
oc vs. sw	27.00	14.60	39.72	20.44	-12.72	25.12	0.61	12.66

(4) Mean overall change of passive abduction

Comparisons	Direct		Indirect		Difference			τ^2
	SMD	SE	SMD	SE	SMD	SE	P value	
mn vs. cpt	-11.46	8.60	-17.30	9.16	5.84	12.55	0.64	12.98
mn vs. pl	-7.30	9.05	-31.93	9.47	24.63	13.10	0.06	11.90
mn vs. st	-16.83	9.46	26.38	9.77	-43.21	13.59	0.00	10.39
mn vs. ls	.	.	.	.	.	.	.	.
mn vs. sm	.	.	.	.	.	.	.	.
cpt vs. sc	3.63	6.59	30.29	12.46	-26.65	14.08	0.06	12.20
cpt vs. ac	34.70	15.76	-28.51	15.97	63.21	22.44	0.01	11.43
cpt vs. si	2.19	5.59	24.46	8.81	-22.27	10.42	0.03	11.78
cpt vs. us	11.00	14.63	-3.34	14.28	14.34	20.44	0.48	12.89
cpt vs. pl	-13.40	9.44	1.00	7.95	-14.40	12.33	0.24	12.75
cpt vs. hy	-2.91	9.61	36.57	21.58	-39.48	23.61	0.09	12.30
cpt vs. st	31.92	7.80	-11.29	11.14	43.21	13.60	0.00	10.39
cpt vs. ds	14.91	13.78	9.98	9.42	4.93	16.70	0.77	13.03
sc vs. si	-4.95	6.86	11.37	11.91	-16.32	13.73	0.24	12.68
sc vs. pl	-16.30	13.11	-13.52	9.39	-2.78	16.12	0.86	13.08
sc vs. nc	-9.00	13.17	-7.14	21.47	-1.86	25.18	0.94	13.05
ac vs. pl	19.24	14.91	-43.98	16.77	63.22	22.44	0.01	11.43
si vs. us	-11.00	13.27	3.34	15.55	-14.34	20.44	0.48	12.89
si vs. pl	-19.94	7.77	-2.48	10.29	-17.46	12.90	0.18	12.61
si vs. oc	-17.00	15.68	17.15	18.60	-34.15	24.33	0.16	12.46
si vs. dt	1.00	9.33	2.12	26.98	-1.11	28.55	0.97	13.09
si vs. hy	3.75	14.04	-12.94	13.40	16.69	19.47	0.39	12.82
si vs. ds	2.15	6.76	10.35	20.88	-8.20	21.93	0.71	13.02
si vs. prp	12.70	13.39	41.37	38.63	-28.67	40.87	0.48	12.89
si vs. nn	-13.60	15.41	-15.38	19.94	1.78	25.20	0.94	13.05
us vs. prp	23.70	13.29	-4.98	38.75	28.68	40.89	0.48	12.89
pl vs. ca	4.00	12.80	38.32	296.51	-34.32	296.78	0.91	12.74
pl vs. hy	16.94	14.10	-0.10	14.40	17.05	20.22	0.40	12.86
pl vs. sw	50.44	9.35	16.31	22.44	34.12	24.31	0.16	12.46
oc vs. sw	22.00	14.77	56.16	19.33	-34.16	24.33	0.16	12.46
dt vs. ds	3.30	13.10	-0.08	14.68	3.38	19.68	0.86	13.09
nc vs. nn	-7.20	13.59	-5.41	21.22	-1.79	25.20	0.94	13.05

(5) Mean overall change of passive external rotation

Comparisons	Direct		Indirect		Difference			τ^2
	SMD	SE	SMD	SE	SMD	SE	P value	
mn vs. cpt	-13.97	10.20	-20.45	7.24	6.48	12.51	0.60	12.60
mn vs. pl	0.39	12.20	-23.27	6.95	23.66	14.04	0.09	12.12
mn vs. oc	-18.75	12.35	4.11	11.59	-22.86	16.93	0.18	12.32
mn vs. st	-13.18	8.77	22.46	8.49	-35.64	12.20	0.00	11.41
mn vs. ls	13.51	12.22	-28.40	13.66	41.91	18.33	0.02	11.79
mn vs. sm	.	.	.	.	.	.	.	.
cpt vs. sc	3.58	6.34	24.04	8.65	-20.46	10.74	0.06	12.05
cpt vs. si	4.20	5.80	12.64	6.81	-8.44	8.95	0.35	12.51
cpt vs. us	11.30	13.19	-0.32	9.22	11.62	16.09	0.47	12.57
cpt vs. pl	-4.98	5.80	8.13	6.50	-13.10	8.70	0.13	12.23
cpt vs. su	3.00	12.62	25.49	23.87	-22.49	27.03	0.41	12.55
cpt vs. hy	-2.80	8.94	23.70	11.57	-26.49	14.64	0.07	12.12
cpt vs. st	39.38	6.03	-1.18	7.63	40.56	9.72	0.00	10.36
cpt vs. sw	33.40	13.46	24.37	8.81	9.03	16.08	0.58	12.61
cpt vs. ac	8.85	14.57	-1.38	14.57	10.23	20.61	0.62	12.60
cpt vs. ds	10.83	13.30	8.93	8.56	1.89	15.81	0.91	12.66
sc vs. si	-3.83	6.54	-0.66	10.42	-3.17	12.30	0.80	12.67
sc vs. pl	-8.56	9.42	-10.72	7.85	2.16	12.28	0.86	12.66
sc vs. st	-3.02	12.28	19.52	8.06	-22.54	14.69	0.13	12.22
ca vs. pl	-2.50	12.55	-34.66	299.35	32.16	299.62	0.92	12.50
si vs. us	-9.71	8.97	6.23	12.44	-15.94	15.33	0.30	12.48
si vs. pl	-9.74	5.93	-1.48	8.19	-8.27	10.10	0.41	12.54
si vs. oc	0.00	13.95	6.35	10.92	-6.35	17.71	0.72	12.63
si vs. dt	4.45	7.36	2.39	25.67	2.07	26.70	0.94	12.67
si vs. hy	6.33	9.01	-13.18	12.11	19.51	15.11	0.20	12.38
si vs. nc	-0.30	12.78	2.05	18.38	-2.35	22.38	0.92	12.67
si vs. ds	0.52	6.48	11.71	18.48	-11.20	19.57	0.57	12.61
si vs. prp	9.20	13.12	16.69	28.86	-7.49	31.63	0.81	12.66
si vs. nn	-1.00	12.94	-3.25	18.27	2.25	22.39	0.92	12.67
us vs. pl	-3.30	12.68	-2.25	9.96	-1.05	16.12	0.95	12.67
us vs. prp	16.00	13.14	8.53	28.84	7.47	31.64	0.81	12.66
pl vs. su	12.00	12.63	-10.33	23.85	22.33	27.03	0.41	12.55
pl vs. hy	10.28	12.91	3.95	9.80	6.33	16.21	0.70	12.65
pl vs. sw	31.34	9.01	18.76	10.91	12.58	14.15	0.37	12.50
pl vs. ac	-1.74	13.84	8.51	15.27	-10.25	20.61	0.62	12.60
pl vs. ls	-6.00	12.14	35.93	13.74	-41.93	18.33	0.02	11.79
oc vs. sw	0.00	12.11	30.95	12.20	-30.95	17.19	0.07	12.10
dt vs. ds	0.90	12.66	-5.43	11.52	6.33	17.12	0.71	12.65
nc vs. nn	-3.00	13.08	-0.71	18.18	-2.29	22.40	0.92	12.67

(6) Mean overall change of passive internal rotation

Comparisons	Direct		Indirect		Difference			τ^2
	SMD	SE	SMD	SE	SMD	SE	P value	
mn vs. cpt	-7.42	5.60	13.09	7.09	-20.51	9.03	0.02	5.43
mn vs. sm	.	.	.	.	.	.	.	.
mn vs. pl	2.79	6.87	-10.77	9.60	13.56	11.81	0.25	6.56
mn vs. oc	.	.	.	.	.	.	.	.
mn vs. ls	.	.	.	.	.	.	.	.
mn vs. st	-12.68	5.77	-28.77	11.90	16.09	13.22	0.22	6.44
cpt vs. sc	-28.50	9.28	-8.43	10.07	-20.07	13.69	0.14	6.45
cpt vs. si	11.29	8.21	12.41	6.21	-1.12	10.28	0.91	7.26

cpt vs. us	14.80	8.00	3.72	8.84	11.08	11.92	0.35	6.66
cpt vs. hy	-6.60	3.91	15.81	4.56	-22.41	6.01	0.00	2.95
cpt vs. mt	1.00	7.34	-0.14	653.37	1.14	653.41	1.00	6.70
cpt vs. ds	11.41	8.18	9.73	8.56	1.68	11.83	0.89	7.22
cpt vs. ac	7.40	9.72	5.70	11.10	1.70	14.75	0.91	7.13
sc vs. st	-0.81	6.46	17.73	12.07	-18.54	13.69	0.18	6.45
sc vs. nn	-22.10	6.84	23.73	202.34	-45.83	202.45	0.82	6.71
si vs. prp	6.70	7.09	28.84	22.73	-22.14	23.84	0.35	6.66
si vs. us	-6.10	7.17	4.98	9.52	-11.08	11.92	0.35	6.66
si vs. pl	-22.10	8.68	-5.68	8.47	-16.42	12.13	0.18	6.29
si vs. dc	0.00	6.75	-24.07	179.12	24.07	179.25	0.89	6.71
si vs. hy	-0.80	3.10	-23.23	5.15	22.43	6.01	0.00	2.95
si vs. ds	-1.40	4.58	-1.26	19.42	-0.14	19.96	0.99	7.24
prp vs. us	-12.80	7.12	9.36	22.70	-22.16	23.84	0.35	6.66
pl vs. ac	8.06	8.53	9.76	12.03	-1.70	14.75	0.91	7.13

(7) Mean overall change of active flexion

Comparisons	Direct		Indirect		Difference			τ^2
	SMD	SE	SMD	SE	SMD	SE	P value	
mn vs. cpt	-26.32	16.11	-10.49	18.96	-15.83	24.78	0.52	11.68
mn vs. si	-9.00	10.91	-28.51	14.17	19.51	17.88	0.28	10.66
mn vs. st	.	.	.	.	.	.	.	.
mn vs. dm	8.10	13.18	47.90	32.47	-39.80	35.73	0.27	10.65
mn vs. ds	-25.01	14.06	-1.77	12.07	-23.24	18.55	0.21	10.22
cpt vs. us	-4.86	9.50	-6.43	20.59	1.57	22.68	0.95	12.26
cpt vs. cr	16.00	11.26	39.23	415.39	-23.23	415.54	0.96	11.00
cpt vs. dm	33.40	15.79	35.99	40.82	-2.59	45.20	0.95	12.24
cpt vs. ds	-0.43	16.28	14.99	15.83	-15.42	22.55	0.49	11.52
si vs. prp	13.60	12.72	16.87	43.49	-3.27	45.32	0.94	12.26
si vs. us	-8.80	12.68	-7.17	18.79	-1.63	22.67	0.94	12.26
si vs. pl	-18.70	11.81	9.89	13.65	-28.59	18.05	0.11	9.39
si vs. ds	11.46	4.98	-15.34	9.24	26.80	10.51	0.01	6.68
prp vs. us	-22.40	12.65	-19.17	43.56	-3.23	45.34	0.94	12.26
pl vs. ls	11.22	11.15	45.93	445.99	-34.71	446.13	0.94	11.00
pl vs. ds	-2.30	12.39	26.18	13.14	-28.48	18.06	0.12	9.38
dm vs. ds	-33.10	13.44	3.54	29.50	-36.64	33.42	0.27	10.57

(8) Mean overall change of active abduction

Comparisons	Direct		Indirect		Difference			τ^2
	SMD	SE	SMD	SE	SMD	SE	P value	
mn vs. cpt	-34.14	28.11	-49.94	22.36	15.80	35.83	0.66	24.65
mn vs. si	-6.00	23.25	-40.00	19.76	34.00	30.52	0.27	23.19
mn vs. pl	-10.86	25.28	-38.52	24.46	27.66	35.17	0.43	24.16
mn vs. dm	13.60	26.67	24.23	53.18	-10.63	60.20	0.86	24.89
mn vs. st	-26.95	20.70	41.61	21.02	-68.56	29.50	0.02	19.12
mn vs. ds	-34.68	27.19	-8.22	21.46	-26.46	34.60	0.44	24.10
cpt vs. cr	15.00	23.74	88.37	414.53	-73.37	415.21	0.86	23.62
cpt vs. us	-9.55	17.72	18.33	33.63	-27.88	38.01	0.46	24.02
cpt vs. cpm	16.10	24.02	88.38	902.38	-72.28	902.70	0.94	23.60
cpt vs. dm	46.80	26.23	114.52	56.46	-67.72	63.70	0.29	23.39
cpt vs. st	61.16	11.19	-7.46	27.35	68.62	29.55	0.02	19.13
cpt vs. ds	-1.97	26.54	50.52	24.88	-52.50	36.38	0.15	22.30
prp vs. si	-13.10	24.31	42.01	71.99	-55.11	75.97	0.47	24.02

prp vs. us	-23.40	24.25	-78.81	72.07	55.41	76.00	0.47	24.02
si vs. us	-10.30	24.24	-37.96	29.28	27.66	38.01	0.47	24.02
si vs. pl	-14.70	25.19	12.80	22.44	-27.50	33.74	0.42	24.05
si vs. ds	19.51	16.90	-13.76	22.48	33.27	28.12	0.24	23.11
pl vs. ls	-0.32	23.69	50.57	428.46	-50.89	429.11	0.91	23.63
pl vs. sw	88.75	23.76	50.17	822.67	38.58	823.02	0.96	23.61
pl vs. ds	6.00	27.03	7.25	23.91	-1.25	36.09	0.97	25.00
dm vs. ds	-48.70	25.23	29.29	54.53	-77.99	61.18	0.20	22.81

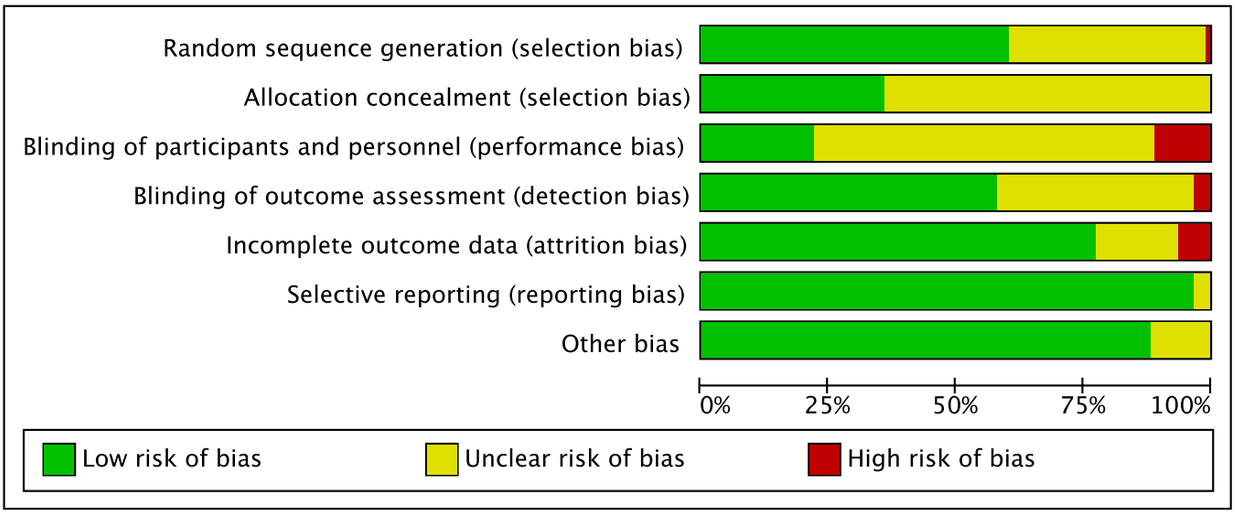
(9) Mean overall change of active external rotation

Comparisons	Direct		Indirect		Difference			τ^2
	SMD	SE	SMD	SE	SMD	SE	P value	
mn vs. cpt	-16.81	13.40	-3.57	10.50	-13.24	16.99	0.44	10.26
mn vs. ds	-25.40	11.63	-2.14	8.25	-23.26	14.26	0.10	9.04
mn vs. dm	13.60	11.27	50.25	23.01	-36.65	26.25	0.16	9.43
mn vs. si	-5.30	9.89	-20.49	8.21	15.19	12.86	0.24	9.83
mn vs. pl	-4.40	11.72	-27.76	10.25	23.36	15.57	0.13	9.52
mn vs. st	-19.00	11.00	5.81	11.31	-24.81	15.78	0.12	9.10
dm vs. ds	-10.43	13.28	3.45	10.13	-13.88	16.67	0.41	10.17
cpt vs. dm	29.50	13.14	30.48	26.72	-0.98	30.97	0.98	10.70
cpt vs. si	-17.40	11.00	1.43	8.60	-18.82	13.96	0.18	9.45
cpt vs. us	-3.40	8.02	-15.07	13.93	11.68	16.07	0.47	10.44
cpt vs. st	4.20	12.00	-3.02	15.54	7.22	19.65	0.71	10.67
cpt vs. cr	5.00	10.16	17.30	170.88	-12.30	171.19	0.94	10.11
ds vs. dm	39.00	11.16	2.24	22.60	36.76	25.81	0.15	9.35
ds vs. si	-7.53	5.95	5.24	9.95	-12.77	11.61	0.27	9.71
ds vs. pl	-9.10	13.87	-6.22	10.38	-2.88	17.32	0.87	10.73
si vs. prp	8.70	10.89	32.09	30.22	-23.39	32.13	0.47	10.44
si vs. us	-5.90	10.91	5.80	11.79	-11.70	16.07	0.47	10.44
si vs. pl	-12.50	10.21	5.43	10.04	-17.93	14.32	0.21	9.76
si vs. st	21.49	9.64	-10.46	10.64	31.95	14.38	0.03	7.92
prp vs. us	-14.60	10.90	8.78	30.21	-23.38	32.13	0.47	10.44
pl vs. ls	-1.70	10.13	35.70	151.78	-37.40	152.12	0.81	10.11

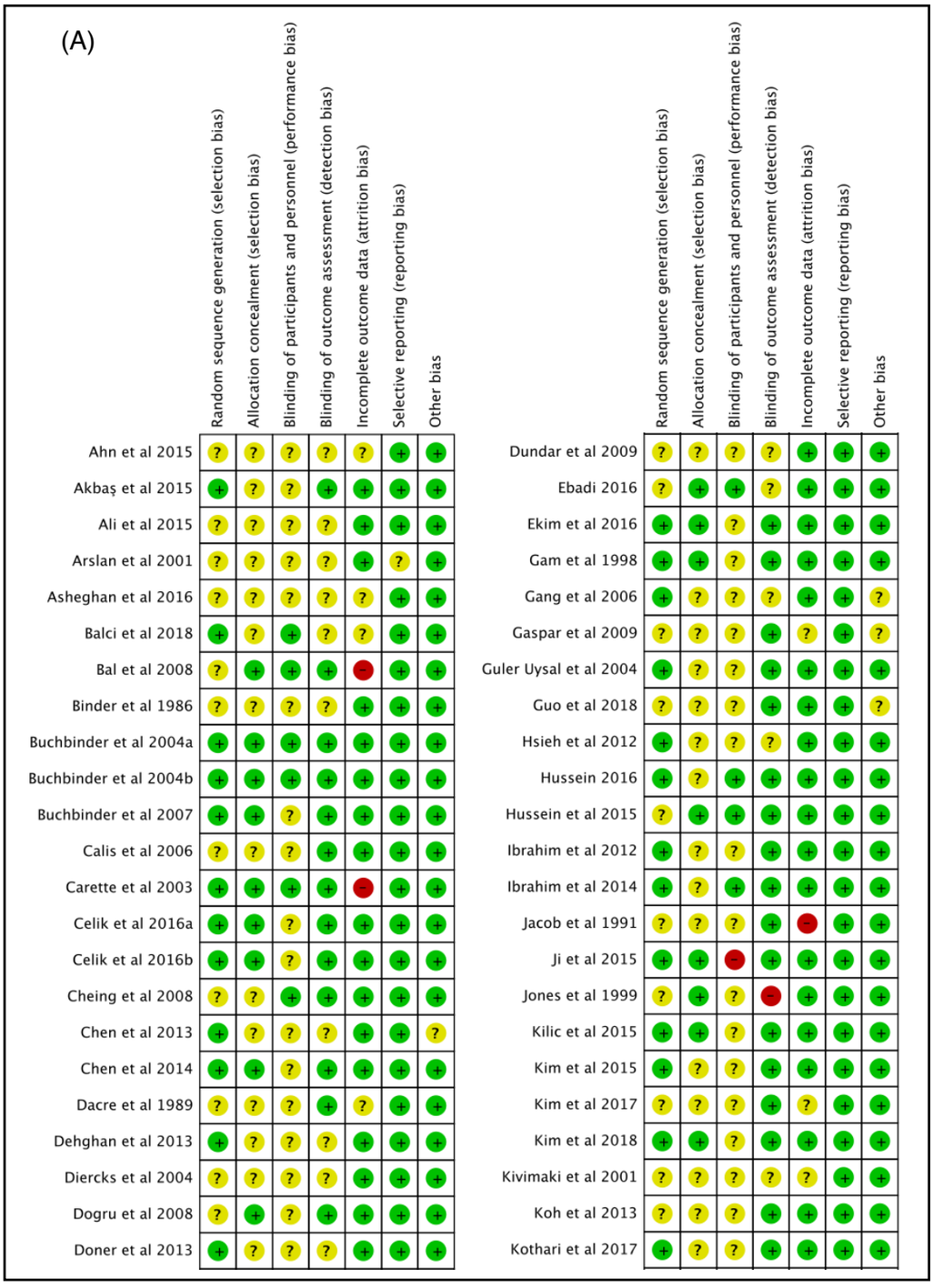
(10) Mean overall change of active internal rotation

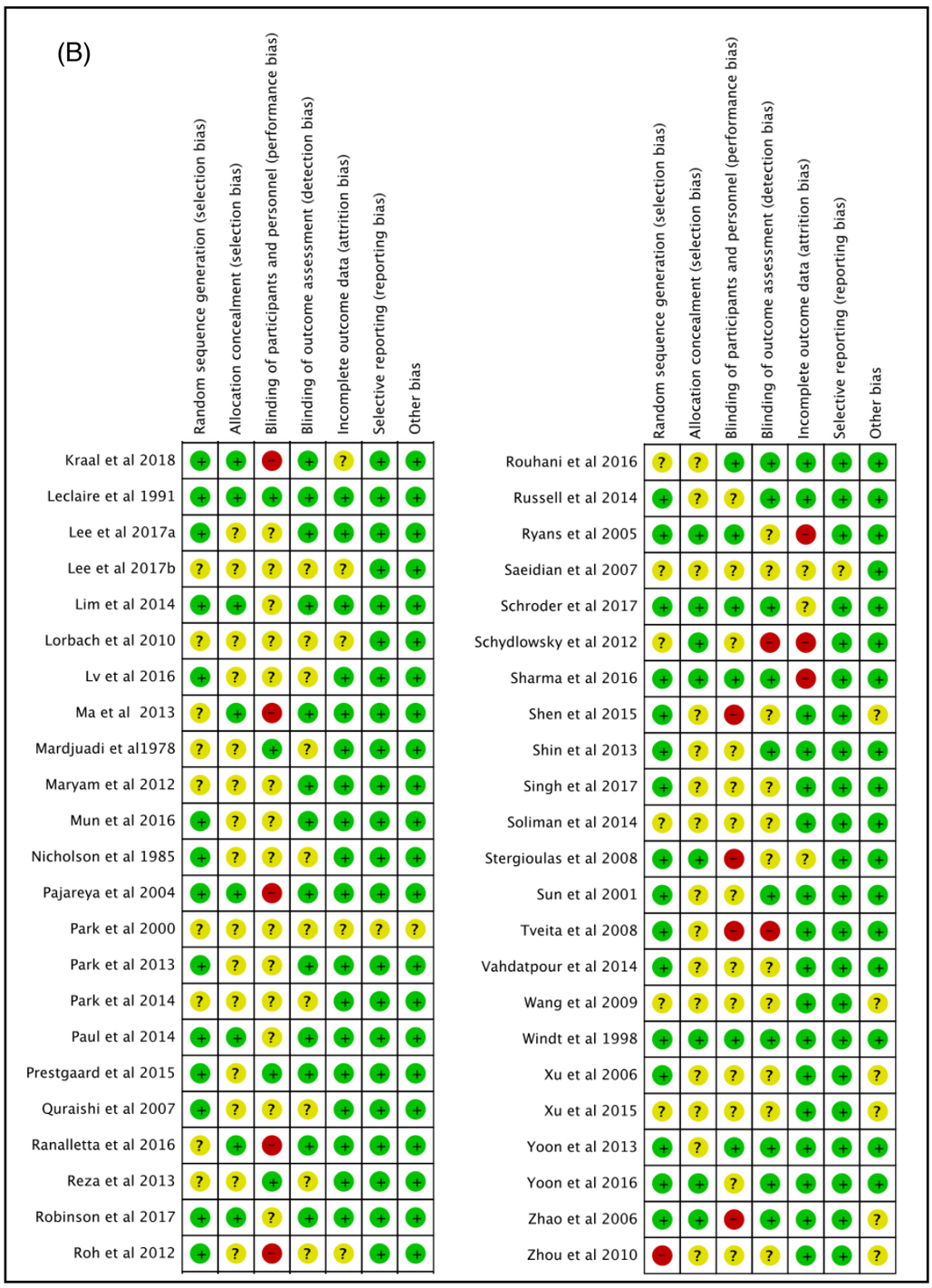
Comparisons	Direct		Indirect		Difference			τ^2
	SMD	SE	SMD	SE	SMD	SE	P value	
mn vs. st	.	.	.	.	.	.	.	.
mn vs. si	-4.00	1.95	1.74	74.02	-5.74	74.05	0.94	0.00
mn vs. pl	.	.	.	.	.	.	.	.
cpt vs. us	1.90	3.09	-4.25	80.16	6.15	80.22	0.94	0.00
cpt vs. cr	9.00	0.98	20.20	169.40	-11.20	169.41	0.95	0.00
ds vs. si	-3.59	1.95	-7.83	544.53	4.24	544.53	0.99	0.00
si vs. prp	7.20	2.34	19.26	153.87	-12.06	153.89	0.94	0.00
si vs. us	-4.20	2.35	1.95	77.98	-6.15	78.01	0.94	0.00
prp vs. us	-11.40	2.30	0.90	156.74	-12.30	156.75	0.94	0.00

Supplementary Figure 1. Assessment of study quality from risk of bias graph



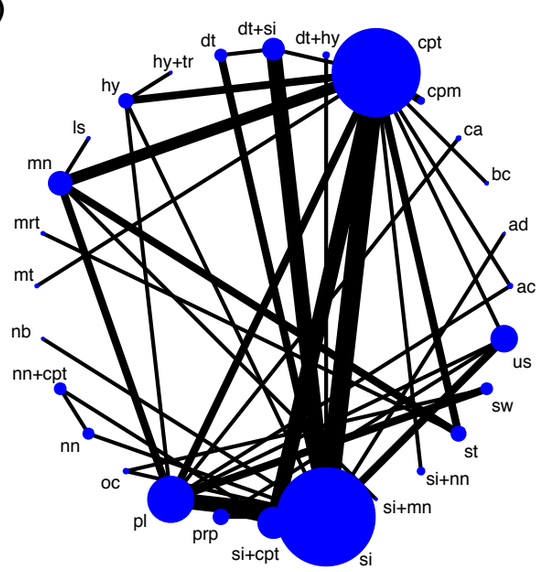
Supplementary Figure 2. Risk of bias summary of included studies



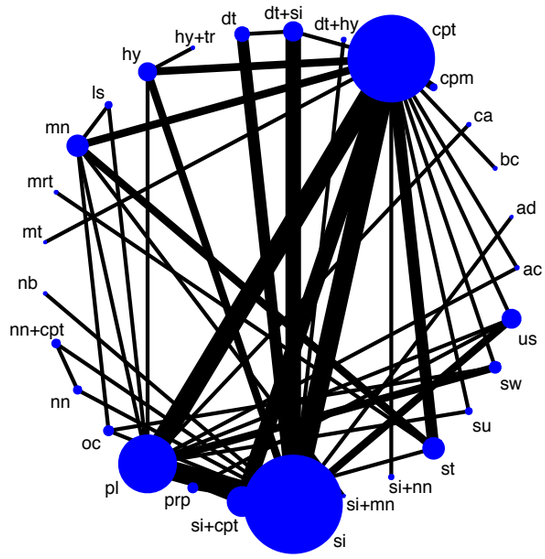

(B)
Random sequence generation (selection bias)
Allocation concealment (selection bias)
Blinding of participants and personnel (performance bias)
Blinding of outcome assessment (detection bias)
Incomplete outcome data (attrition bias)
Selective reporting (reporting bias)
Other bias
Kraal et al 2018
Leclaire et al 1991
Lee et al 2017a
Lee et al 2017b
Lim et al 2014
Lorbach et al 2010
Lv et al 2016
Ma et al 2013
Mardjuadi et al1978
Maryam et al 2012
Mun et al 2016
Nicholson et al 1985
Pajareya et al 2004
Park et al 2000
Park et al 2013
Park et al 2014
Paul et al 2014
Prestgaard et al 2015
Quraishi et al 2007
Ranalletta et al 2016
Reza et al 2013
Robinson et al 2017
Roh et al 2012
Rouhani et al 2016
Russell et al 2014
Ryans et al 2005
Saeidian et al 2007
Schroder et al 2017
Schydlowsky et al 2012
Sharma et al 2016
Shen et al 2015
Shin et al 2013
Singh et al 2017
Soliman et al 2014
Stergioulas et al 2008
Sun et al 2001
Tveita et al 2008
Vahdatpour et al 2014
Wang et al 2009
Windt et al 1998
Xu et al 2006
Xu et al 2015
Yoon et al 2013
Yoon et al 2016
Zhao et al 2006
Zhou et al 2010

Supplementary Figure 3. Network Geometry of Eligible Comparisons for Other Outcomes

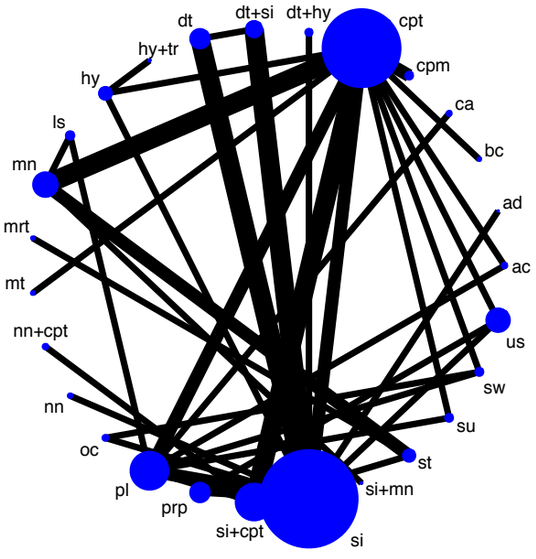
(A)



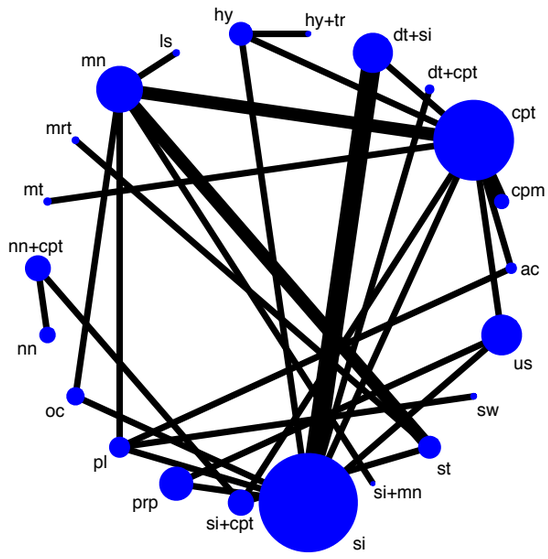
Network of Eligible Comparisons for Passive Abduction (Increased ROM)



Network of Eligible Comparisons for Passive External Rotation (Increased ROM)

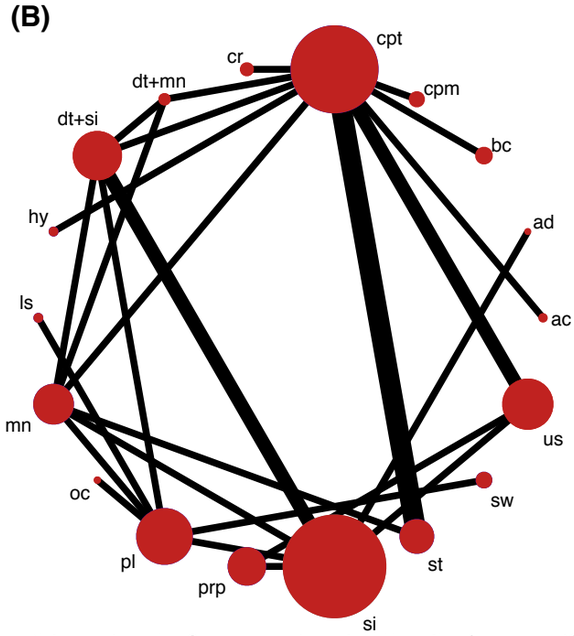


Network of Eligible Comparisons for Passive Flexion (Increased ROM)

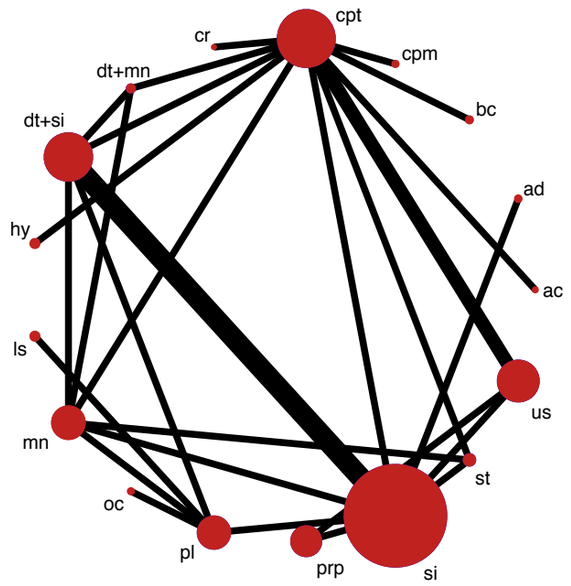


Network of Eligible Comparisons for Passive Internal Rotation (Increased ROM)

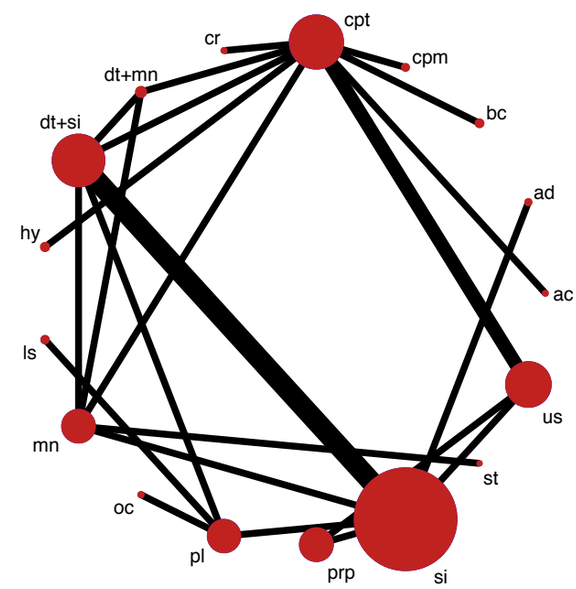
(B)



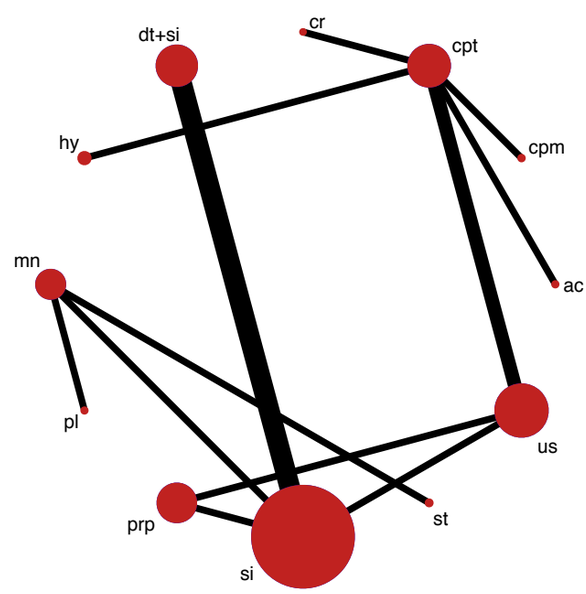
Network of Eligible Comparisons for Active Abduction (Increased ROM)



Network of Eligible Comparisons for Active External Rotation (Increased ROM)

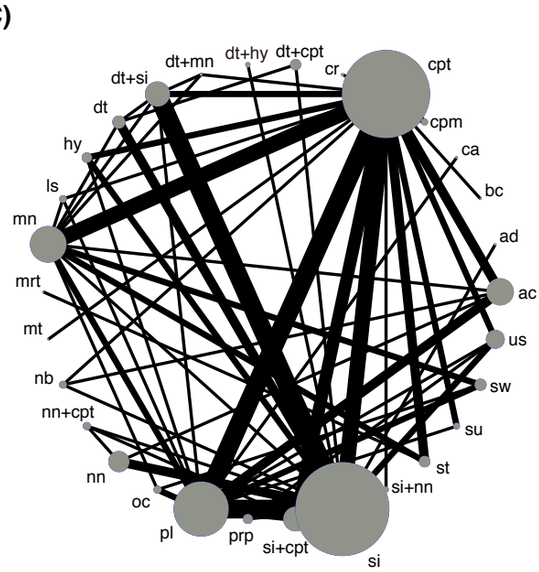


Network of Eligible Comparisons for Active Flexion (Increased ROM)

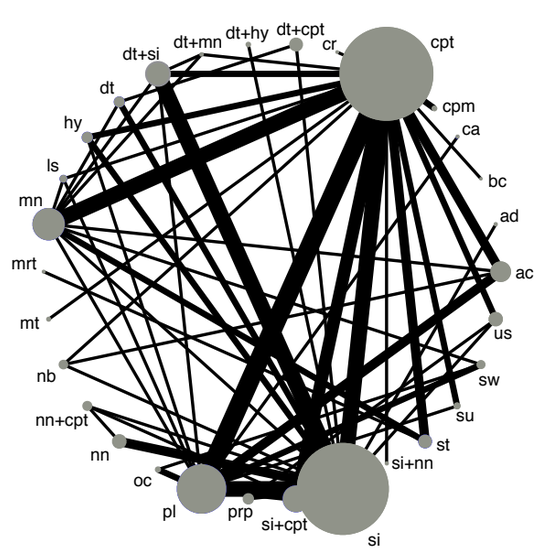


Network of Eligible Comparisons for Active Internal Rotation (Increased ROM)

(C)

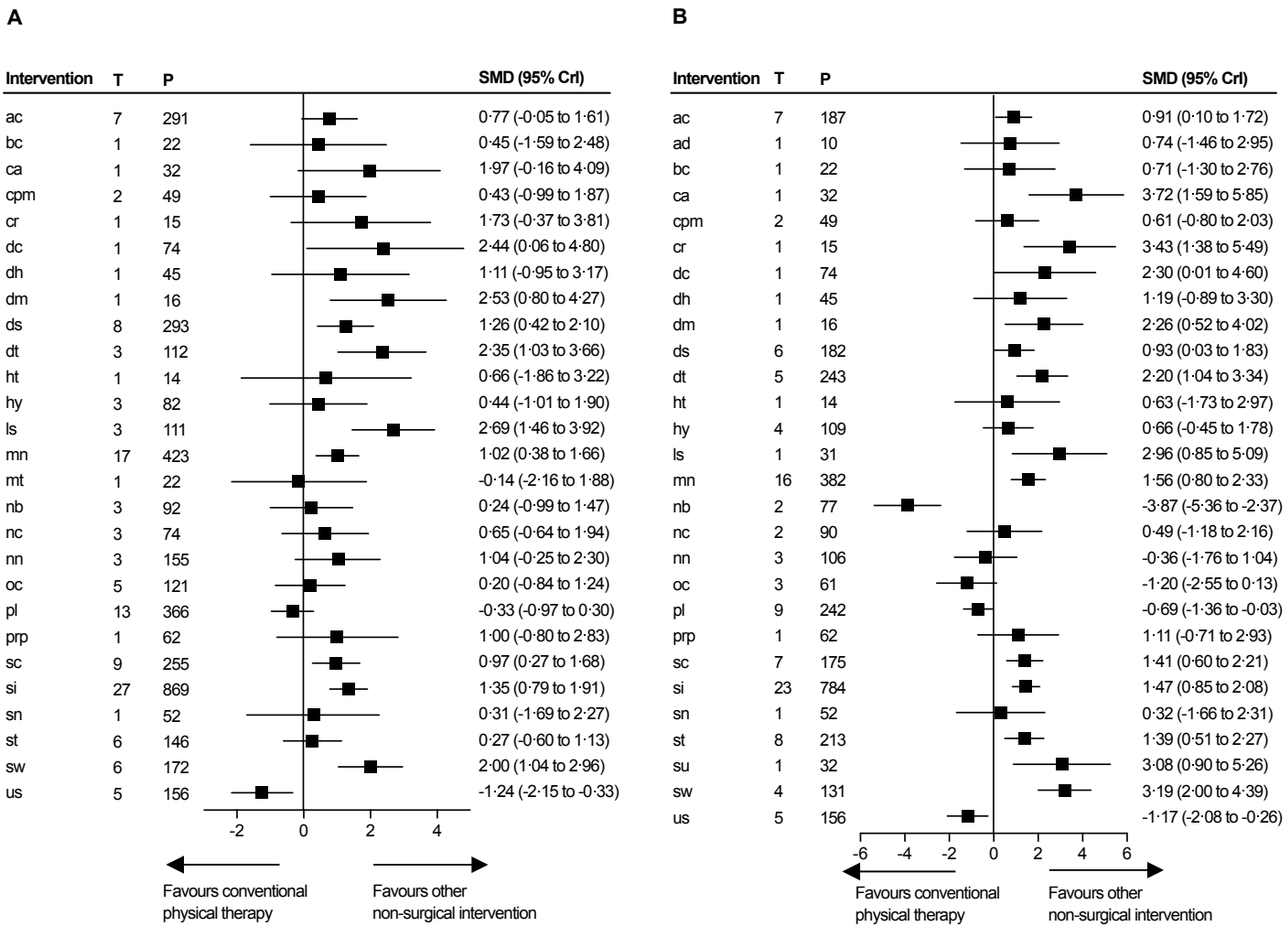


Network of Eligible Comparisons for All-cause Discontinuation (Dropout rate)



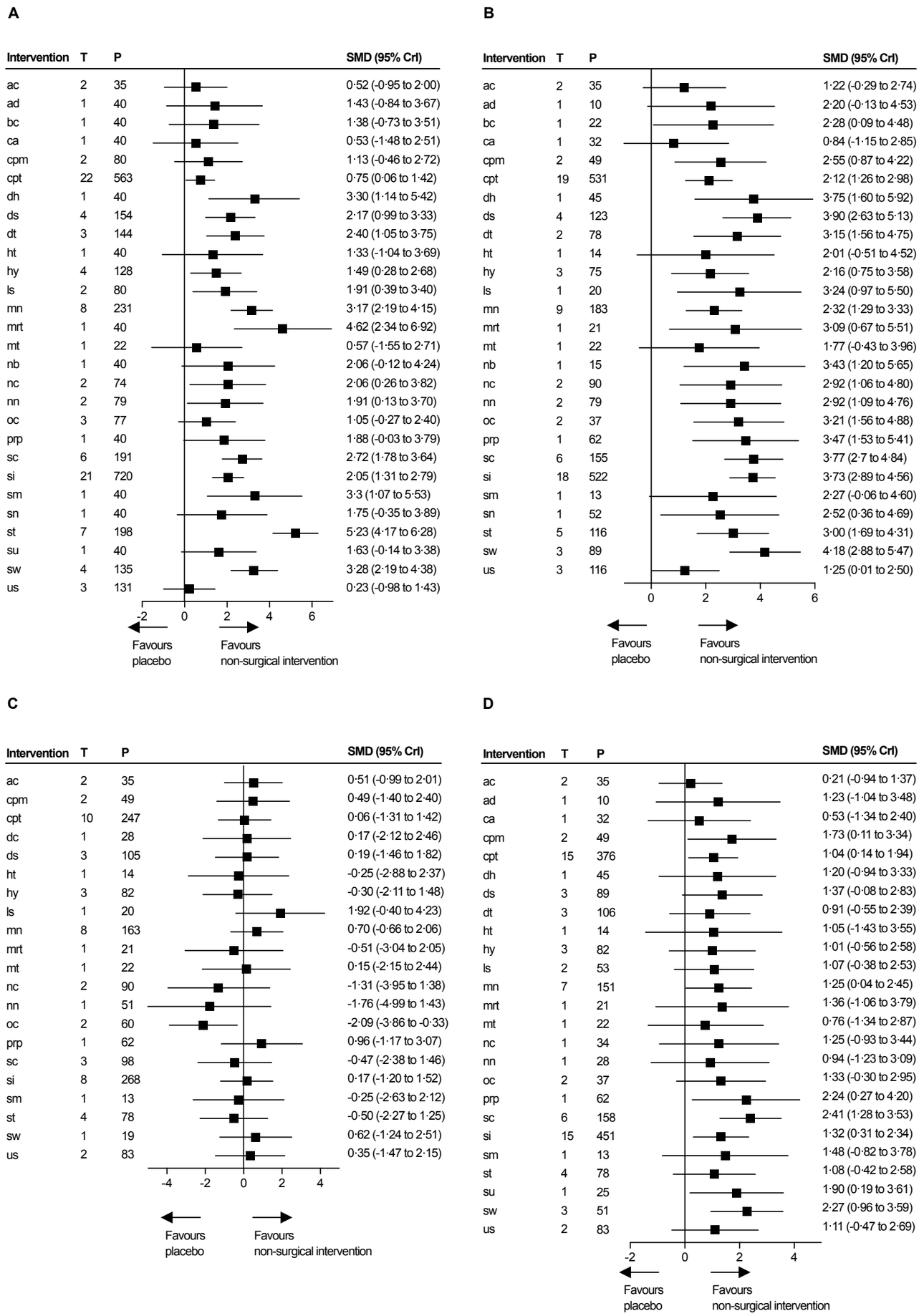
Network of Eligible Comparisons for Discontinuation of Adverse Events (Dropout rate)

Supplementary Figure 4. Forest plot of network meta-analysis compared with conventional physical therapy for pain and function scores



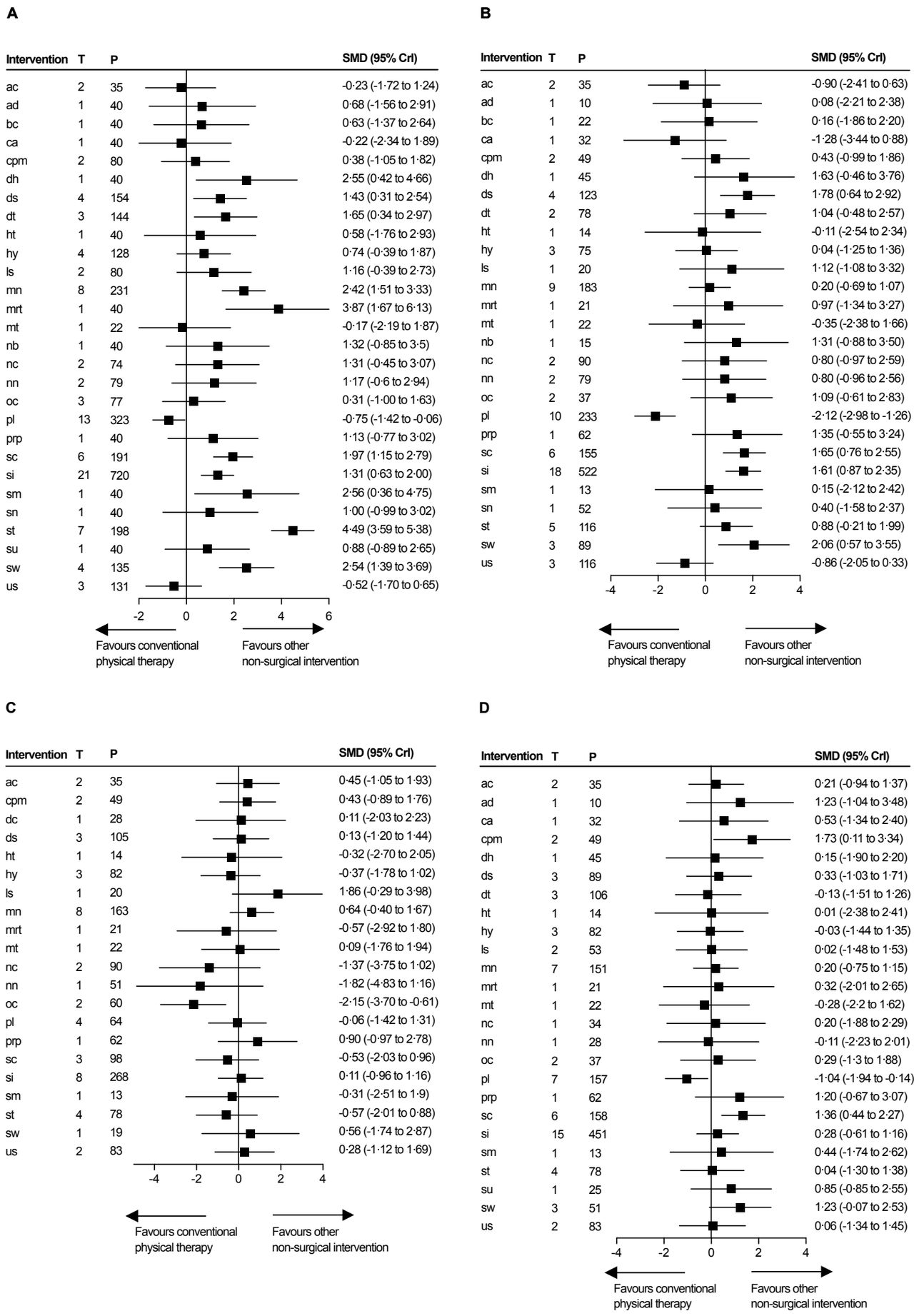
Efficacy of non-surgical intervention compared with conventional physical therapy is measured as improved change from baseline in (A) pain score; (B) function score. SMD= standard mean difference. CrI=credible interval. T=number of trials. P=number of patients.

Supplementary Figure 5. Forest plot of network meta-analysis compared with placebo for outcomes of passive range of motion



Efficacy of non-surgical intervention compared with placebo is measured as improved change from baseline in passive range of motion regarding (A) passive external rotation; (B) passive abduction; (C) passive flexion; (D) passive internal rotation. SMD= standard mean difference. CrI=credible interval. T=number of trials. P=number of patients.

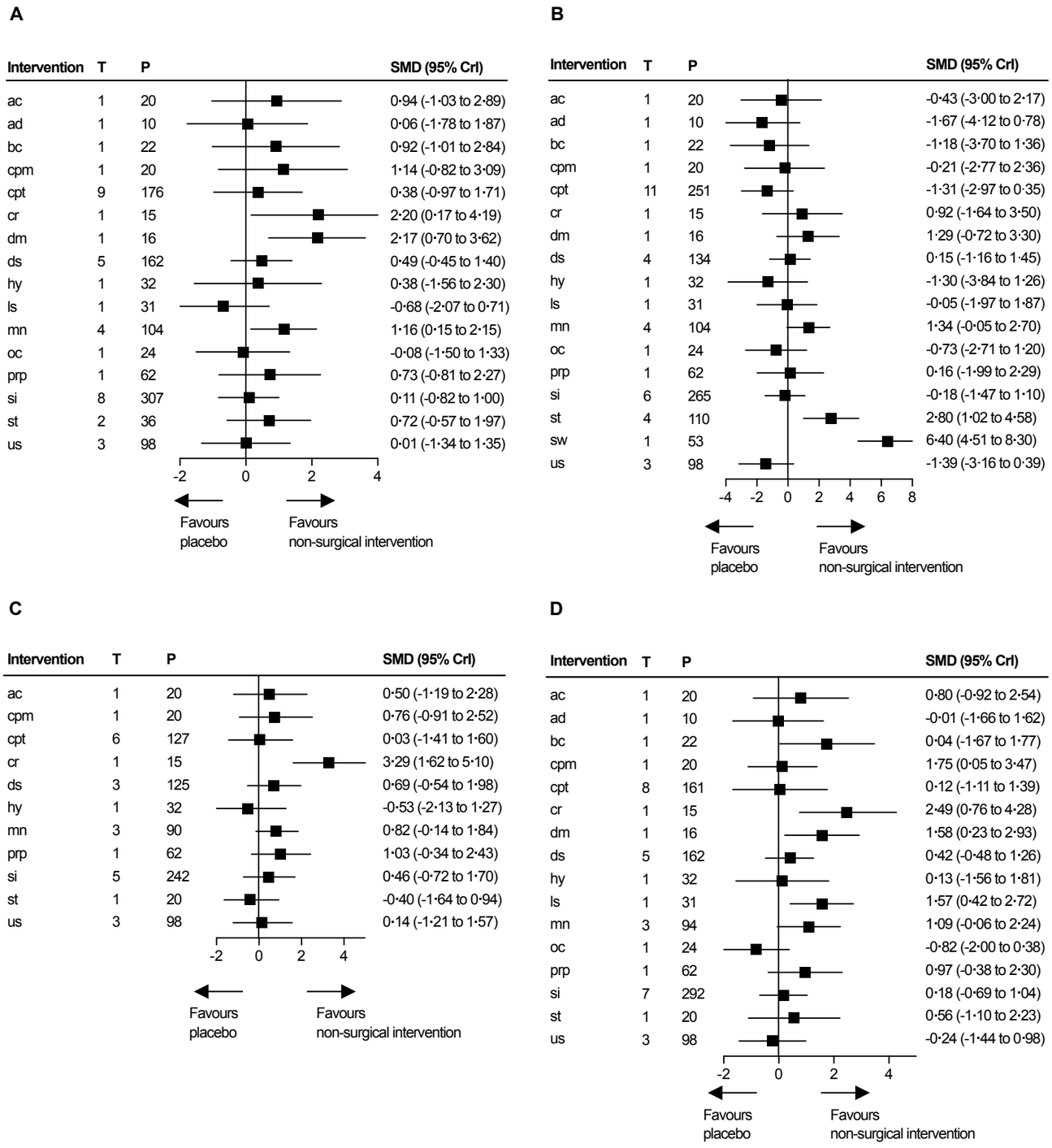
Supplementary Figure 6. Forest plot of network meta-analysis compared with conventional physical therapy for passive range



of motion

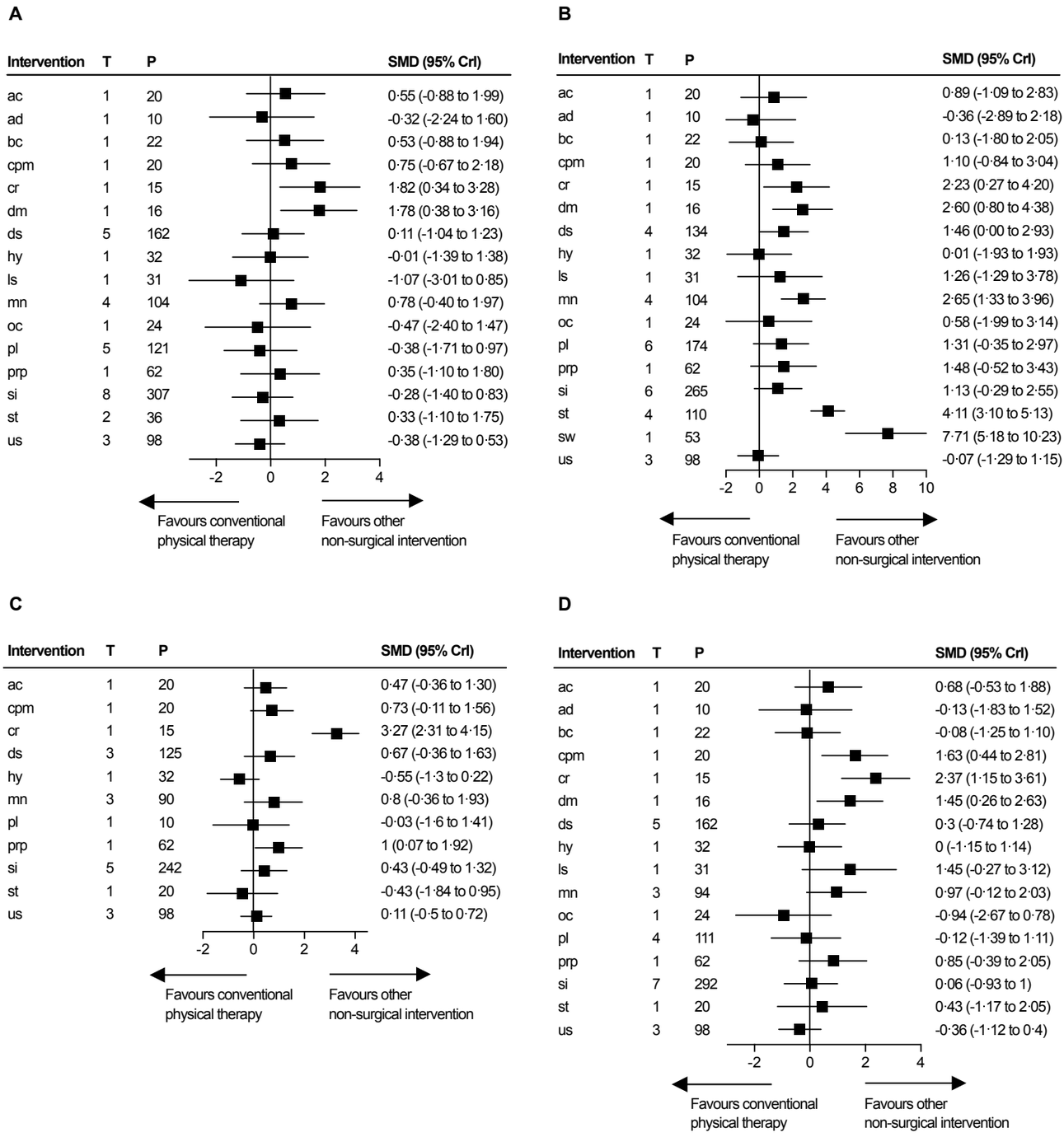
Efficacy of non-surgical intervention compared with conventional physical therapy is measured as improved change from baseline in passive range of motion regarding (A) passive external rotation; (B) passive abduction; (C) passive flexion; (D) passive internal rotation. SMD= standard mean difference. CrI=credible interval. T=number of trials. P=number of patients.

Supplementary Figure 7. Forest plot of network meta-analysis compared with placebo for outcomes of active range of motion



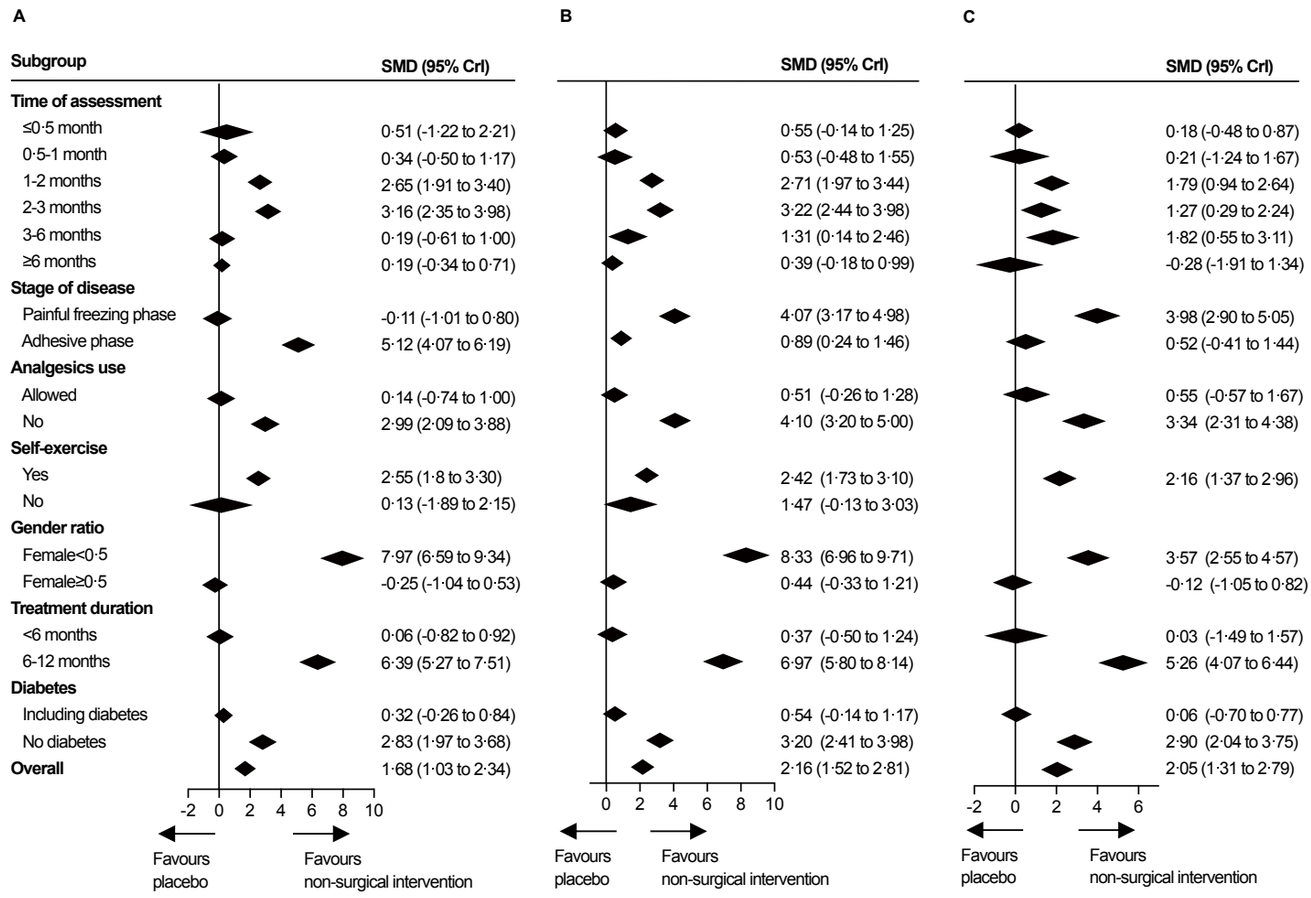
Efficacy of non-surgical intervention compared with placebo is measured as improved change from baseline in active range of motion regarding (A) active external rotation; (B) active abduction; (C) active flexion; (D) active internal rotation. SMD= standard mean difference. CrI=credible interval. T=number of trials. P=number of patients.

Supplementary Figure 8. Forest plot of network meta-analysis compared with conventional physical therapy for active range of motion



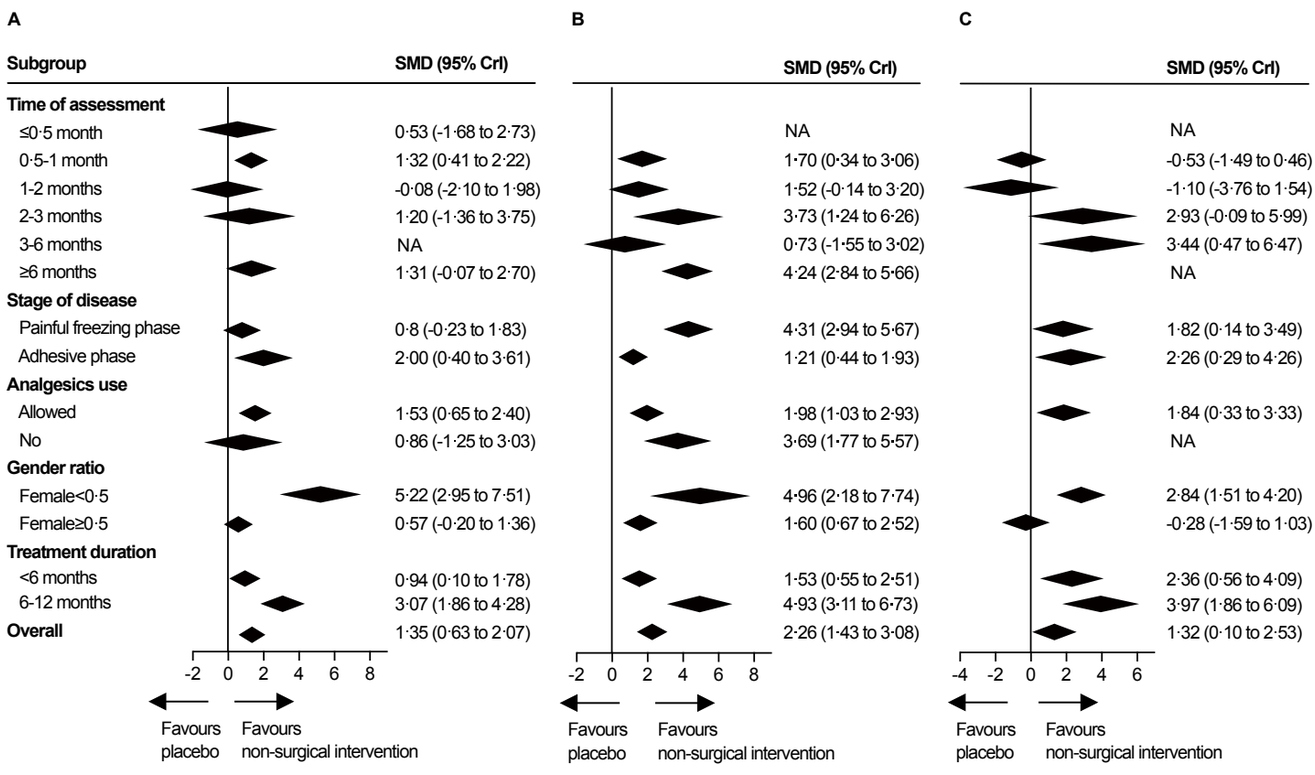
Efficacy of non-surgical intervention compared with conventional physical therapy is measured as improved change from baseline in active range of motion regarding (A) active external rotation; (B) active abduction; (C) active flexion; (D) active internal rotation. SMD= standard mean difference. CrI=credible interval. T=number of trials. P=number of patients.

Supplementary Figure 9. Summary forest plot of the effect of steroid injection in prespecified subgroups



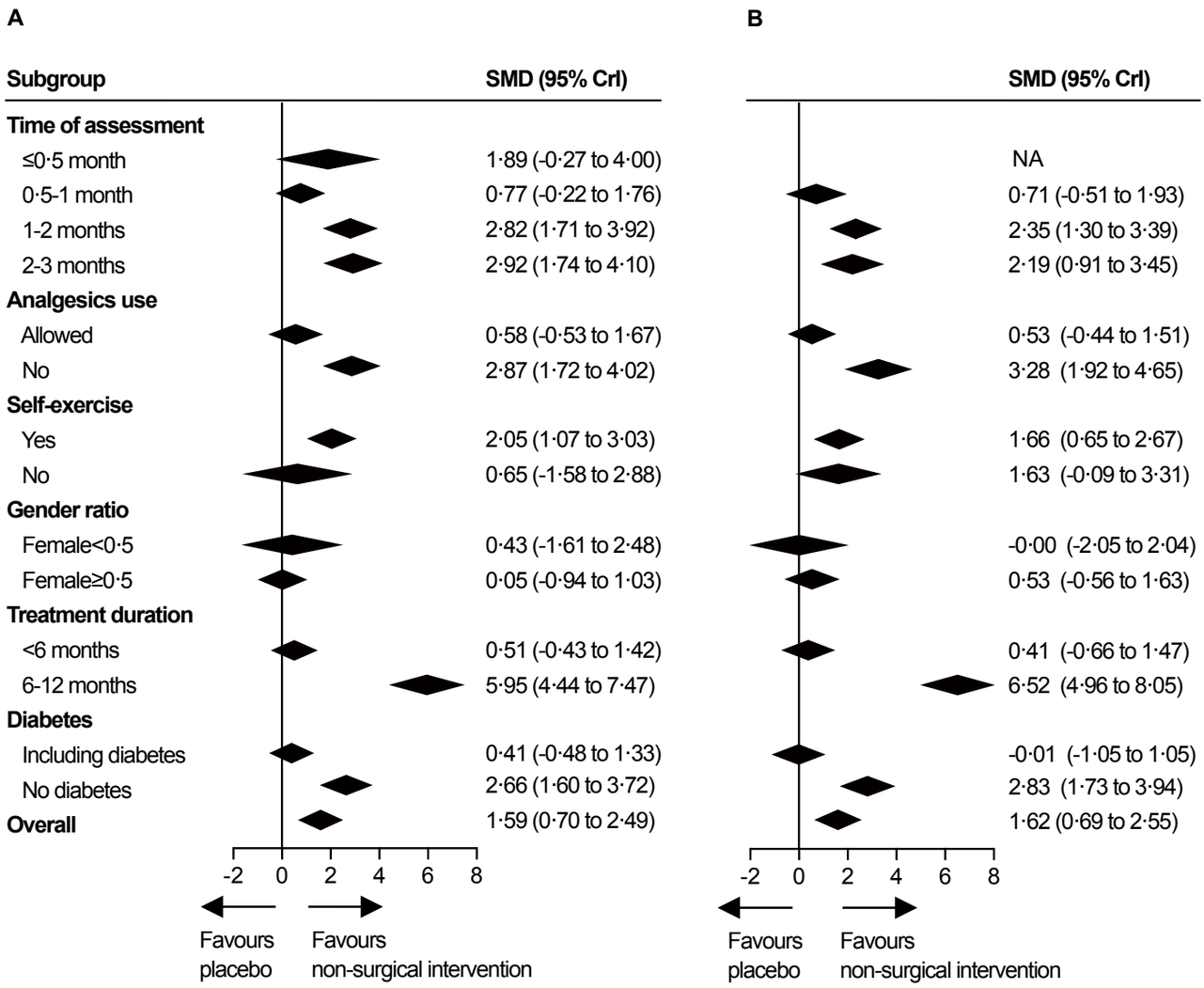
Summary forest plot of network meta-analysis in prespecified subgroups for (A) the pain score, (B) function score, and (C) passive range of external rotation. SMD=standard mean difference. CrI=credible interval.

Supplementary Figure 10. Summary forest plot of the effect of joint manipulation in prespecified subgroups



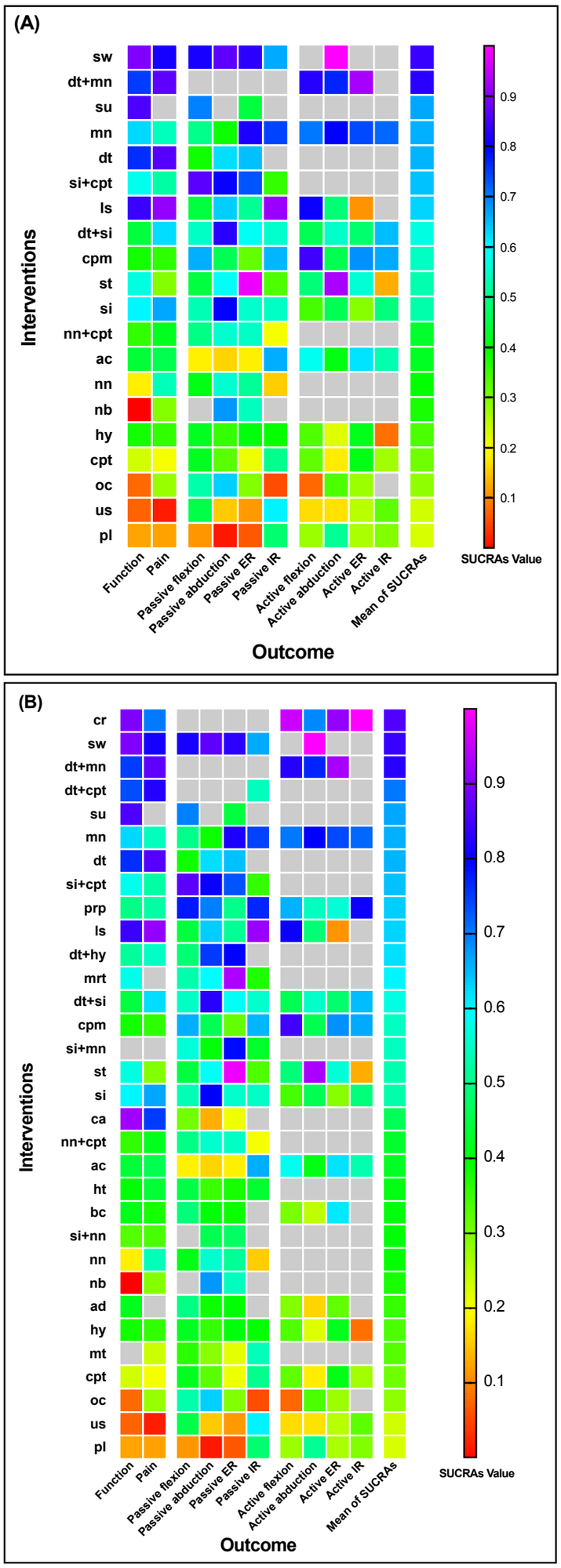
Summary forest plot of network meta-analysis in prespecified subgroups for (A) the pain score, (B) function score, and (C) passive range of flexion. SMD=standard mean difference. CrI=credible interval.

Supplementary Figure 11. Summary forest plot in prespecified subgroups showing the effect of the combination of capsular distension and steroid injection



Summary forest plot of network meta-analysis in prespecified subgroups for (A) the pain score, (B) function score. SMD=standard mean difference. CrI=credible interval.

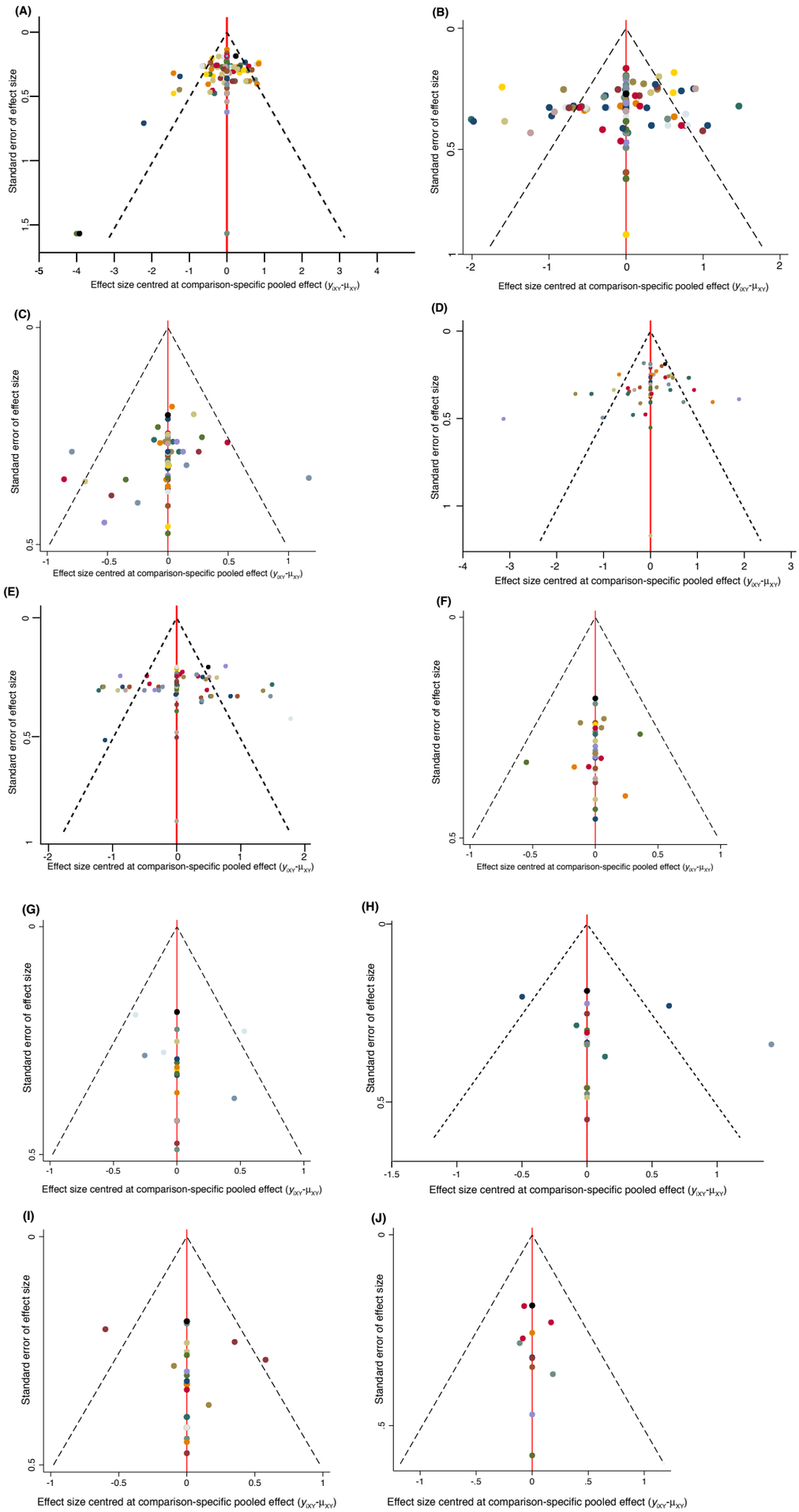
Supplementary Figure 12. Rank-heat plot of SUCRAs of interventions for each outcome



(A) Rank-heat plot of SUCRAs of interventions after sensitivity analysis by excluding interventions with only one study; (B) Rank-heat plot of SUCRAs of all the interventions from included studies.

Notes: Higher SUCRAs values indicate more effective interventions.

Supplementary Figure 13. Comparison-adjusted funnel plot of the network meta-analysis for each outcome



Comparison-adjusted funnel plot of the network meta-analysis for (A) pain management, (B) function improvement, (C) passive flexion, (D) passive abduction, (E) passive external rotation, (F) active internal rotation, (G) active flexion, (H) active abduction, (I) active external rotation, (J) active internal rotation.

Supplementary References.s

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