

Supplemental file 1. Eligible journals, articles assessed and controlled clinical trials included.

<i>JOURNAL</i>	<i>CCT</i>	<i>Total</i>
Revista Argentina de Artroscopia	1	252
Revista de la Asociación Argentina de Ortopedia y Traumatología	7	523
Revista de la Sociedad de Ortopedia y Traumatología del Conurbano Sur	Not available	
Revista Chilena de Ortopedia y Traumatología	2	165
Revista Colombiana de Ortopedia y Traumatología	4	374
Revista Acta Médica Costarricense	0	595
Revista Cubana de Ortopedia y Traumatología	3	171
Revista Ecuatoriana de Ortopedia y Traumatología	Not available	
El peu	0	30
Osteopatía científica	0	38
Revista de biomecánica	0	213
Revista de la Sociedad Andaluza de Traumatología y Ortopedia	0	134
TOI-Técnica ortopédica internacional	0	20
Aparato Locomotor	1	216
Cuadernos de Artroscopia	0	123
Revista de Patología de la Rodilla	Not available	
Revista Española de Cirugía Ortopédica y Traumatología	17	766
Revista Española de Cirugía Osteoarticular	1	125
Técnicas Quirúrgicas en Ortopedia y Traumatología	0	100
Acta Ortopédica Mexicana	19	1071
Investigación en Discapacidad	0	27
ORTHO-TIPS	0	137
Revista Mexicana de Ortopedia Pediátrica	0	44
Trauma	1	58
Revista Venezolana de Cirugía Ortopédica y Traumatología	Not available	
Metabolismo óseo y mineral	0	62
PROATO. Programa de Actualización en Traumatología y Ortopedia	Not available	
Revista Española de Podología	0	86
Trauma-MAPFRE	1	301
Total (29 journals)	57	5631

Supplemental file 2. PICO information for included controlled clinical trials

Author, year	Subspecialty	Topic	Population	Intervention	Comparator	Outcome 1	Outcome 2	Outcome 3	Outcome 4	Outcome 5 ^a
Almaraz 2002 ¹	Trauma	Immune stimulation	Patients with exposed fracture of long bones, cranioccephalic traumatism, penetrating wound of the thorax and/or abdomen.	GB-100 (2 capsules of 500 mg orally every 8 hours)	Placebo	Hemoglobin levels	Hematocrit levels	Phagocytic index	Hospital stay	Post-surgical infections
Amenabar 2015 ²	Hip	Surgical Hemostasis	Patients with total hip replacement indication due to osteoarthritis	Tranexamic acid- bolus (20 mg/kg 5 minutes preoperatively) Tranexamic acid- continuous (40 mg/kg continuous infusion for 6 hours postoperatively)	Placebo (20 ml saline)	Intraoperative bleeding	Drainage blood loss	Total blood loss	Need for transfusion	
Alonso 2007 ³	Spine	Ozone therapy	Patients with low back pain or sciatic pain	Ozone treatment	Rest and analgesia	Pain (scale of severity)	Oswestry Low Back Pain Disability Questionnaire	Hand-flow distance	Lassegue test	Reinsertion of patients to labor activities
Arismendi 2011 ⁴	Shoulder	Suture Anchors	Patients diagnosed with acute acromioclavicular dislocations grades III to V according to the Rockwood classification	Coracoclavicular suture anchors	Direct acromioclavicular reduction using a hook plate	Recurrence rate	Shoulder Functionality: Constant score			
Arteaga 2015 ⁵	Knee	Regeneration procedures	Patients with knee osteoarthritis grades II y III according the Kellgren and Lawrence's classification	Intraarticular injections of Collagen PVP (6 doses)	Intraarticular injections of hylan GF-20 (3 doses)	International Knee Documentation Committee (IKDC)	pain: VAS scores			
Aviña 2009 ⁶	Foot & ankle	Tenotomy	Patients with acute rupture of the Achilles tendon	Minimally-invasive surgery assisted with a mechanical guide	Lynn's technique	Pain: VAS score	Muscle strength	Mobility in extension	Flexion	Amyotrophy
Bidolegui 2014 ⁷	Knee	Surgical Hemostasis	Patients with primary gonarthrosis	Total knee arthroplasty + tranexamic acid 15mg/kg diluted in 100 cc of saline solution IV (2 doses)	Total knee arthroplasty + tourniquet	Postoperative hematocrit level	Hemoglobin values	Drainage	Transfusionnal requirement	Surgical time
Boretto 2006 ⁸	Hand	Tenotomy	Patients with carpal tunnel syndrome	Mini-open carpal tunnel technique for surgical release	Open carpal tunnel technique for surgical release	Pain and pillar pain	Numbness	Grip and pinch-pulp		
Bosch 1999 ⁹	Pediatric	Foot Orthoses	Children 3 to 5 years of age diagnosed with flexible flat foot	internal wedges in orthopedic shoes, shoe inserts	Control group	Correction of flat foot flexible in children	Diagnosis of flat foot	Optimal age for diagnosis		
Calderon 2013 ¹⁰	Hip	Fracture Fixation	Patients with a Boyd & Griffin type II intertrochanteric fracture	Proximal femoral nail	DHS plate	Harris scale	Pain: VAS scores	Operative time	Incision size	Intraoperative bleeding

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Calvo 2016 ¹¹	Knee	Nerve Block	Patients underwent ACL reconstruction with an autograft	single dose FNB with bupivacaine diluted in 10 mL saline solution	continuous FNB infusion with bupivacaine and epinephrine (1:300.000) for 48 hours	Pain	Thigh hypo-aesthesia	Need for additional anesthesia		
Carriedo 2002 ¹²	Knee	Arthroplasty, Replacement	Patients with primary osteoarthritis, osteoarthritis because of angular deformity, traumatic arthritis, rheumatoid arthritis and metabolic arthritis	Total knee prosthesis, condylar type, preserving the PCL (posterior cruciate ligament)	Total knee prosthesis, condylar type, removing the PCL (posterior cruciate ligament)	Maximum operating time	Trans operative bleeding	Absence of pain	Need of a cane for walking	Normal range of motion
Castro-Menendez 2016 ¹³	Knee/Hip	Surgical Hemostasis	Patients undergoing knee or hip arthroplasty	1 g iv. Intraoperative tranexamic acid + 1 g iv. after 3h of surgery	2 g iv. of tranexamic acid 30 min before surgery	Postoperative blood loss	Transfusion rate	Thromboembolic complications		
Castro-Menendez 2016b ¹⁴	Hand	Tenotomy	Patients with Carpal tunnel syndrome	Z-lengthening of TCL according to a modified Simonetta technique	Complete release of transverse carpal ligament (TCL)	Grip strength	Pillar pain	Clinical and functional assessment: Levine questionnaire		
Cervera-Irimia 2013 ¹⁵	Spine	Epidural injection	Patients with chronic low back disc pain	Fluoroscopy guided caudal epidural steroid injections	Oral non-steroidal anti-inflammatory drugs	Lumbar pain	Oswestry Low Back Pain Disability Questionnaire	Patient satisfaction	Sport-active	
Cervin 2005 ¹⁶	Spine	Analgesic	Patients with painful osteoporotic vertebral compression fractures	Percutaneous vertebroplasty	100 UI of calcitonin	Pain: VAS score	Complications	Treatment success		
Chialva 2013 ¹⁷	Knee	Drainage	Patients undergoing primary arthroscopic ambulatory ACL reconstruction, using hamstrings autografts	Postoperative suction drains	No postoperative suction drains	Mobility range	Pain: VAS scores	Intraarticular swelling (hemarthrosis)	Patient satisfaction	
De Agostino 2004 ¹⁸	Knee	Anterior Cruciate Ligament Reconstruction	Patients with anterior cruciate ligament rupture of less than one year of evolution.	Open reconstruction	Arthroscopic surgery	Patient satisfaction	Subjective and objective stability	Return to sports	Pain	
De Napoli 2016 ¹⁹	Knee/Hip	Surgical Hemostasis	Patients undergoing primary hip and knee arthroplasties	Tranexamic acid	Placebo	Preoperative and postoperative hematocrit	Preoperative and postoperative hemoglobin	Hospital stay	Number of red cell unit transfusion	Complications
Farfalli 2007 ²⁰	Knee	Drainage	Patients undergoing arthroscopically assisted ACL reconstruction with hamstrings graft	Drain for 24 hours	No drain	Pain scores	Suprapatellar girth	Flexion	Extension	
Fernandez 2014 ²¹	Knee	Analgesic	Patients who underwent arthroscopic meniscectomy	10 ml of bupivacaine hydrochloride 0.5%	10 ml of bupivacaine hydrochloride 0.5% + triamcinolone acetonide (solution of 40 mg)	Pain: VAS score	Requirement of rescue analgesia			

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Gutierrez 2009 ²²	Knee	Analgesic	Patients with lateral hyperpressure syndrome (LHS) with patellofemoral chondromalacia (Outerbridge, grades I, II and III) that required knee arthroscopy	0.5% bupivacaine (2 mg/kg), epinephrine (100 µg) and fentanyl (2.5 µg/kg)	0.5% bupivacaine (2 mg/kg) and epinephrine (100 µg)	Pain	Time of analgesia	Postoperative range of motion at postoperative hours 6 and 24.		
Hernandez 2003 ²³	Knee	Arthroplasty, Replacement	Patients with degenerative joint disease grade III or IV according Ahlback classification	Wireless computer-assisted surgery (surgical navigation)	Conventional system with manual instrumental alignment	Femoral angle	Tibial angle	Femoro-tibial angle		
Holguin 2007 ²⁴	hip	Indirect traction	Patients with proximal hip fracture undergoing surgery	Preoperative skin traction	No traction	Pain: VAS scores	Complications	MMSE scores	Pressure ulcers	
Juarez 2013 ²⁵	Spine	Ligamentoplasty	Patients with degenerative lumbar spondylolisthesis who underwent circumferential arthrodesis	Dynamic stabilization system placed in the segment above	No dynamic stabilization system placed in the segment above	Degeneration and disease of the segment above were assessed	Radiculopathy	SF-12	Pain: VAS scores	
Lopez 2002 ²⁶	Hip	Fracture Fixation	Patients with pertrochanteric fractures managed surgically	Gamma nails	Sliding screws	Postoperative transfusion	Surgical time	Medical complications	Re-interventions	Time to consolidations
Lopez 2015 ²⁷	Hip	Fracture Fixation	Patients with pertrochanteric femoral fractures (AO classification 31-A1, 31-A2)	Standard Gamma 3 nail + distal locking	Standard Gamma 3 nail + no distal locking	Medical complications	Biomechanical complications	Fracture collapse	Transfusional requirement in units	Death rate
Marquez 2015 ²⁸	Hip	Arthroscopy	Patients with femoro-acetabular impingement	Hip arthroscopy by outside-in technique	Hip arthroscopy by inside-out technique	Pain: VAS score	Requirement of rescue analgesia	Operation time	WOMAC score	
Martinez 2015 ²⁹	Elbow	Regeneration procedures	Patients with epicondylitis of the elbow	Single administration of platelet rich plasma	Single dose of 40 mg of methylprednisolone	Pain: VAS score	Pain: Quick DASH scale	Epicondylitis of the elbow		
Martinez 2003 ³⁰	Foot & ankle	Fracture Fixation	Patients with Danis-Weber type B ankle fracture	Posterior nonslipping plaque (PNP)	Lateral plaque (LP)	Technical difficulties	Operative time	Functional results	Dehiscence	Infection
Mas-Atance 2011 ³¹	Hip	Antiplatelet agents	Patients over 65 years of age with low energy hip fracture	Plaque (PNP)	Patients on antiplatelet therapy undergoing delayed surgery, patients not on antiplatelet therapy undergoing early surgery	Bleeding	Transfusion requirements	Mortality at 12 months	Barthel index before hip fracture	Number of transfusions
Mencia 2005 ³²	Knee	Surgical Hemostasis	Patients who underwent total knee replacement	Hemostasis was carried out with electrocautery once the tourniquet was deflated intraoperatively	Incision was closed and compressive dressing was applied before tourniquet removal	Surgical Blood Loss	Hemoglobin levels	Hematocrit levels	Transfusional requirement in units	Operative time
Molano 2015 ³³	Knee	Education of patients	Patients undergoing knee arthroscopy	Videos on a web page + conventional information	Conventional information	Correct answers	Incorrect answers	Blank answers	Patient education	

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Olivares_2004 ³⁴	Trauma	Nerve Block	Patients with upper limb injuries	Supraclavicular blocking	Interscalenic blocking	Sensitivity	Motor function	Extension	Brachial plexus blocking	
Ortiz 2014 ³⁵	Spine	Spinal Fusion	Patients undergoing instrumented lumbar arthrodesis (one level instrumented circumferential lumbar fusion)	Autologous bone graft	Fresh frozen bone allograft	Quality of life (ODI index)	Operative time	Hospital stay	Fusion rate	
Palma 2015 ³⁶	Shoulder	Arthroscopy	Patients with tears of up to 3 cm of the supraspinatus tendon, diagnosed by magnetic resonance imaging, with failure of up to three months conservative treatment.	Trans osseous-equivalent (TOE) with two anchors 5.5 mm PEEK, 3-wire, medial, and two knotless lateral anchors	Classic single row technique with one or two anchors in 5.5 mm PEEK, with 3-wire	Shoulder Functionality: Constant score				
Pereda 2006 ³⁷	Trauma	Fracture Fixation	Patients with closed tibial diaphyseal fractures	HAP-200 Coraline hydroxyapatite + open reduction and internal osteosynthesis	Open reduction and internal osteosynthesis	Consolidation time	Osseo integration	complications		
Perez 2011 ³⁸	Knee	Viscosupplementation	patients with gonarthrosis grade I, II, III	Five 2.5 ml doses of hyaluronic acid, at one dose per week	Single 2 ml dose of intraarticular methylprednisolone	WOMAC functional scale	Pain: VAS scores			
Pescador 2011 ³⁹	Knee	Arthroplasty, Minimally Invasive Surgical Procedures	Patients undergoing total knee arthroplasty	Minimally invasive surgery	Classical approach	Operative time	Hospital stay	Surgical blood loss	Auto-transfusion	Pain: VAS scores at postoperative, 4 and 8 years
Pesciallo 2009 ⁴⁰	Knee	Analgesic	Patients undergoing total knee arthroplasty	Intraoperative infiltration of periarticular soft tissues(20 ml ropivacaine of 7.5 mg / ml diluted in 20 ml of physiological solution + 0.1 µg of clonidine + 4 mg of morphine)	No infiltration	Pain score	Rescue opioids			
Pesciallo 2015 ⁴¹	Knee	Nerve Block	Patients undergoing total knee arthroplasty	Intraoperative infiltration of periarticular soft tissues(20 ml ropivacaine of 7.5 mg / ml diluted in 20 ml of physiological solution + 0.1 µg of clonidine + 4 mg of morphine)	Femoral and sciatic nerve block before surgery	Postoperative pain score	Rescue opioids	Complications		
Prieto 2009 ⁴²	Knee	Nerve Block	Patients undergoing total knee arthroplasty	Bupivacaine 0.25% (30 ml)	Bupivacaine 0.25% (15 ml)+mepivacaine 2% (15 ml)	Pain score	Patient satisfaction	Analgesia onset time	Analgesia duration	Complications
Restrepo 2007 ⁴³	Hip	Arthroplasty, Replacement	Patients undergoing total hip arthroplasty	Minimal invasive hip arthroplasty + drains	Minimal invasive hip arthroplasty	Inflammation	Postoperative hematocrit level	Pain	Bleeding	Transfusional requirement
Rojas 2005 ⁴⁴	Shoulder	Anesthesia and Analgesia	Patients undergoing reduction of the shoulder dislocation	10 milliliters of 2% Lidocaine intraarticular	IV Propofol at the rate of 1 mg/kg	Pain: VAS score	Hospital stay			

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Salles 2012 ⁴⁵	Hand	Tenotomy	Patients diagnosed with carpal tunnel syndrome	Transverse incision of 1 cm proximal to carpal transverse ligament	Two incisions, one transverse proximal to carpal transverse ligament and the other distal	Pain: VAS score	Major complications	Patient satisfaction	Incorporation of daily activities	
Sánchez 2000 ⁴⁶	Trauma	Fracture Fixation	Adult patients with distal radius fractures types A3 and C2 according to AO classification	Closed reduction, stabilization with Norian SRS, and cast immobilization for 2 weeks	Closed reduction with cast immobilization for 6 weeks	Presence, location and intensity of pain in the fractured wrist at 6 weeks, 3 and 6 months	Recovery of function at 6 weeks, 3 and 6 months	Hand strength	Ability to perform daily activities	Radiographic results
Sangüesa 2006 ⁴⁷	Knee	Surgical Hemostasis	Patients who underwent total knee replacement	Group C, after prosthesis placement the tourniquet was removed hemostasis was applied and open drainages without vacuum were left in place for 24 hours, and then with vacuum for a further 24 hours Group D, the tourniquet was kept in place until compressive bandaging was completed and open drainages without vacuum were left in place for 24 hours, and then with vacuum for a further 24 hours	Group A, the incision was closed without withdrawing the tourniquet and, after compressive bandaging open drainages with vacuum were left in place for 48 hours Group B, after prosthesis placement the tourniquet was removed, hemostasis was applied and open drainages with vacuum were left in place for 48 hours	Surgical /Postoperative Blood Loss	Hemoglobin levels	Hematocrit levels		
Sebastian 2012 ⁴⁸	Trauma	Fracture Fixation	Patients with distal radius fractures type III- VIII according to Fryckman classification	Volar plate	External fixator	McDermid Test	Pain: VAS score	Disability	Functionality	Complications
Sebastian 2001 ⁴⁹	Spine	Transfusion	Patients who underwent instrumented lumbar spinal fusion	Group B (postoperative autologous blood salvage PBSR); Group C (preoperative autologous blood donation PABD); Group D (preoperative autologous blood donation + postoperative autologous blood salvage PABD + PBSR)	Group A (Control, homologous blood alone)	Reducing exposure to homologous blood transfusions (HBT)	Transfusion-related complications			
Trueba 2003 ⁵⁰	Shoulder	Anesthesia and Analgesia	Patients undergoing reduction for acute anterior glenohumeral dislocation	Intraarticular injection of 20 ml of 1% lidocaine	Intravenous injection of propofol 1mg/kg	Pain: VAS score	Time or reduction maneuver	Avoidance of homologous blood transfusions	Complications	Stay length in ER
Utrilla 1998 ⁵¹	Trauma	Fracture Fixation	Elderly patients with trochanteric fracture of the femur	Compression screw-on sliding plate	RAB nail-plate (monoblock with a reinforced 120° angle)	Successful reduction	Radiological reduction	Complications	Reoperation	
Valles 2011 ⁵²	Knee	Arthroscopy	Patients undergoing knee arthroscopy surgery, grade I the Outerbridge classification	RV023 (Hyalgan GF20 +6-MPA + bupivacaine +oxitetracycline +glicine)	Hyalgan GF20	Articular function	Articular function recovery	Complications		

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Varela 2010 ⁵³	Hip	Arthroplasty, Replacement	Patients with primary or secondary coxarthrosis to aseptic femoral head necrosis	Minimally invasive direct lateral approach	Conventional direct lateral approach	Surgical blood loss	Postoperative pain	Time to recovery	Operative time	Component adjustment
Vargas-Mena 2012 ⁵⁴	Infection	Antibiotic	Patients undergoing elective orthopedic surgery due to acute or chronic disease	Cephalothin for 24 hours and placebo for ten days	Cephalothin for 24 hours plus ten additional days of dicloxacillin	Operative time	Hospital stay	Adverse events	Surgical time	
Vega 2002 ⁵⁵	Knee	Arthroscopic Surgical Procedures	Adult patients who had grade II-III bilateral patellar chondromalacia	High frequency	Debridement of the patella and scissor lateral retinaculum release	Pain score	Gait	Transoperative complications	Postoperative complications	Inflammation
Vicent 2007 ⁵⁶	Knee	Analgesic	Patients undergoing knee arthroscopy	A.-1 mg morphine chloride B.-4 mg morphine chloride	Placebo: saline solution	Pain control: VAS	Rescue analgesia	Side effects		
Vidal 2000 ⁵⁷	Knee	Anesthesia and Analgesia	Patients undergoing knee arthroscopy	Bupivacaine 0.5% and epinephrine 1:200,000 and 100 mg fentanyl at 30 ml	Bupivacaine 0.5% and epinephrine 1:200,000 at 30 ml	Postoperative pain	Operative time	Post-surgical bleeding	Complications	

^a. Up to five outcomes per study were included in the table.

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Supplemental file 3. Risk of bias assessment for each included CCT

Almaraz 2002

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Unclear risk	No description of the methods used to allocate participants to treatment group was given
Allocation concealment (selection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of participants and personnel (performance bias)	Low risk	Blinding of participants and key study personnel ensured, and unlikely that the blinding could have been broken (double blind study)
Blinding of outcome assessment (detection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Incomplete outcome data (attrition bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Selective reporting (reporting bias)	Unclear risk	Insufficient information to permit judgement of 'Low risk' or 'High risk
Other bias	Low risk	The study appears to be free of other sources of bias

Alonso 2007

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Unclear risk	No description of the methods used to allocate participants to treatment group was given
Allocation concealment (selection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of participants and personnel (performance bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of outcome assessment (detection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Incomplete outcome data (attrition bias)	Low risk	No missing outcome data
Selective reporting (reporting bias)	Unclear risk	Insufficient information to permit judgement of 'Low risk' or 'High risk
Other bias	Low risk	The study appears to be free of other sources of bias

Amenabar 2015

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Low risk	The investigators describe a random component in the sequence generation process (computer random number generator)
Allocation concealment (selection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of participants and personnel (performance bias)	Low risk	Blinding of participants and key study personnel ensured, and unlikely that the blinding could have been broken (Surgeon, patients and surgical team were blinded to assigned group.)
Blinding of outcome assessment (detection bias)	Low risk	Blinding of outcome assessment ensured, and unlikely that the blinding could have been broken.(external assessment)
Incomplete outcome data (attrition bias)	Low risk	No missing outcome data
Selective reporting (reporting bias)	Unclear risk	Insufficient information to permit judgement of 'Low risk' or 'High risk'
Other bias	Low risk	The study appears to be free of other sources of bias

Arismendi 2011

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Low risk	The investigators describe a random component in the sequence generation process (computer random number generator)
Allocation concealment (selection bias)	Low risk	Participants and investigators enrolling participants could not foresee assignment (Central allocation-telephone controlled randomization-);
Blinding of participants and personnel (performance bias)	Low risk	Blinding of participants and key study personnel ensured, and unlikely that the blinding could have been broken (Surgeon, patients and surgical team were blinded to assigned group.)
Blinding of outcome assessment (detection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Incomplete outcome data (attrition bias)	Low risk	No missing outcome data
Selective reporting (reporting bias)	Unclear risk	Insufficient information to permit judgement of 'Low risk' or 'High risk
Other bias	Low risk	The study appears to be free of other sources of bias

Arteaga 2015

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	High risk	The investigators describe a non-random component in the sequence generation process. (Patients were divided into two groups: even or odd numbers)
Allocation concealment (selection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of participants and personnel (performance bias)	High risk	No blinding or incomplete blinding, and the outcome is likely to be influenced by lack of blinding;
Blinding of outcome assessment (detection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Incomplete outcome data (attrition bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Selective reporting (reporting bias)	Unclear risk	Insufficient information to permit judgement of 'Low risk' or 'High risk
Other bias	Low risk	The study appears to be free of other sources of bias

Aviña 2009

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Unclear risk	No description of the methods used to allocate participants to treatment group was given
Allocation concealment (selection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of participants and personnel (performance bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias-
Blinding of outcome assessment (detection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Incomplete outcome data (attrition bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Selective reporting (reporting bias)	Unclear risk	Insufficient information to permit judgement of 'Low risk' or 'High risk
Other bias	Low risk	The study appears to be free of other sources of bias

Bidolegui 2014

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Unclear risk	No description of the methods used to allocate participants to treatment group was given
Allocation concealment (selection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of participants and personnel (performance bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of outcome assessment (detection bias)	Low risk	No blinding of outcome assessment, but the review authors judge that the outcome measurement is not likely to be influenced by lack of blinding
Incomplete outcome data (attrition bias)	Low risk	No missing outcome data
Selective reporting (reporting bias)	Unclear risk	Insufficient information to permit judgement of 'Low risk' or 'High risk
Other bias	Low risk	The study appears to be free of other sources of bias

Boretto 2016

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Unclear risk	No description of the methods used to allocate participants to treatment group was given
Allocation concealment (selection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of participants and personnel (performance bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of outcome assessment (detection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Incomplete outcome data (attrition bias)	Low risk	No missing outcome data
Selective reporting (reporting bias)	Unclear risk	Insufficient information to permit judgement of 'Low risk' or 'High risk
Other bias	Low risk	The study appears to be free of other sources of bias

Bosh 1999

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Unclear risk	No description of the methods used to allocate participants to treatment group was given The investigators describe a random component in the sequence generation process
Allocation concealment (selection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of participants and personnel (performance bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of outcome assessment (detection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Incomplete outcome data (attrition bias)	High risk	High levels of attrition: 31% participants were lost at follow-up
Selective reporting (reporting bias)	Unclear risk	Insufficient information to permit judgement of 'Low risk' or 'High risk
Other bias	Low risk	The study appears to be free of other sources of bias

Calderon 2013

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Unclear risk	No description of the methods used to allocate participants to treatment group was given
Allocation concealment (selection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of participants and personnel (performance bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of outcome assessment (detection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Incomplete outcome data (attrition bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Selective reporting (reporting bias)	Unclear risk	Insufficient information to permit judgement of 'Low risk' or 'High risk
Other bias	Low risk	The study appears to be free of other sources of bias

Calvo 2016

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Unclear risk	No description of the methods used to allocate participants to treatment group was given
Allocation concealment (selection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of participants and personnel (performance bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of outcome assessment (detection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Incomplete outcome data (attrition bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Selective reporting (reporting bias)	Unclear risk	Insufficient information to permit judgement of 'Low risk' or 'High risk
Other bias	Low risk	The study appears to be free of other sources of bias

Carriedo 2002

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Unclear risk	No description of the methods used to allocate participants to treatment group was given
Allocation concealment (selection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of participants and personnel (performance bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of outcome assessment (detection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Incomplete outcome data (attrition bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Selective reporting (reporting bias)	Unclear risk	Insufficient information to permit judgement of 'Low risk' or 'High risk
Other bias	Low risk	The study appears to be free of other sources of bias

Castro- Menendez 2016a

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Unclear risk	No description of the methods used to allocate participants to treatment group was given
Allocation concealment (selection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of participants and personnel (performance bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of outcome assessment (detection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Incomplete outcome data (attrition bias)	Low risk	No missing outcome data
Selective reporting (reporting bias)	Unclear risk	Insufficient information to permit judgement of 'Low risk' or 'High risk
Other bias	Low risk	The study appears to be free of other sources of bias

Castro-Menendez 2016b

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	High risk	The investigators describe a non-random component in the sequence generation process (Assignment performed by date of clinical appointment)
Allocation concealment (selection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of participants and personnel (performance bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of outcome assessment (detection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Incomplete outcome data (attrition bias)	Low risk	No missing outcome data
Selective reporting (reporting bias)	Unclear risk	Insufficient information to permit judgement of 'Low risk' or 'High risk'
Other bias	Low risk	The study appears to be free of other sources of bias

Cervera-Irimia 2013

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Unclear risk	No description of the methods used to allocate participants to treatment group was given
Allocation concealment (selection bias)	Low risk	Participants and investigators enrolling participants could not foresee assignment (opaque, sealed envelopes)
Blinding of participants and personnel (performance bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of outcome assessment (detection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Incomplete outcome data (attrition bias)	Unclear risk	Insufficient reporting of attrition/exclusions to permit judgement of 'Low risk' or 'High risk'
Selective reporting (reporting bias)	Unclear risk	Insufficient information to permit judgement of 'Low risk' or 'High risk'
Other bias	Low risk	The study appears to be free of other sources of bias

Cervin 2005

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Low risk	The investigators describe a random component in the sequence generation process (computer random number generator)
Allocation concealment (selection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of participants and personnel (performance bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of outcome assessment (detection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Incomplete outcome data (attrition bias)	Low risk	No missing outcome data
Selective reporting (reporting bias)	Unclear risk	Insufficient information to permit judgement of 'Low risk' or 'High risk
Other bias	Low risk	The study appears to be free of other sources of bias

Chialva 2013

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Unclear risk	No description of the methods used to allocate participants to treatment group was given
Allocation concealment (selection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of participants and personnel (performance bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of outcome assessment (detection bias)	Low risk	Blinding of outcome assessment ensured, and unlikely that the blinding could have been broken
Incomplete outcome data (attrition bias)	Low risk	No missing outcome data
Selective reporting (reporting bias)	Unclear risk	Insufficient information to permit judgement of 'Low risk' or 'High risk
Other bias	Low risk	The study appears to be free of other sources of bias

De Agostino 2004

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	High risk	The investigators describe a non-random component in the sequence generation process (alternating way)
Allocation concealment (selection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of participants and personnel (performance bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of outcome assessment (detection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Incomplete outcome data (attrition bias)	High risk	High levels of attrition: 37% of participants were lost at follow-up
Selective reporting (reporting bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Other bias	Low risk	The study appears to be free of other sources of bias

De Napoli 2016

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Low risk	The investigators describe a random component in the sequence generation process (throwing dice)
Allocation concealment (selection bias)	Low risk	Participants and investigators enrolling participants could not foresee assignment (opaque, sealed envelopes were used)
Blinding of participants and personnel (performance bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of outcome assessment (detection bias)	Low risk	No blinding of outcome assessment, but the review authors judge that the outcome measurement is not likely to be influenced by lack of blinding
Incomplete outcome data (attrition bias)	Low risk	the proportion of missing outcomes compared with observed event risk not enough to have a clinically relevant impact on the intervention effect estimate (1.61%)
Selective reporting (reporting bias)	Unclear risk	Insufficient information to permit judgement of 'Low risk' or 'High risk'
Other bias	Low risk	The study appears to be free of other sources of bias

Farfalli 2007

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Low risk	The investigators describe a random component in the sequence generation process (Random number table)
Allocation concealment (selection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of participants and personnel (performance bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of outcome assessment (detection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Incomplete outcome data (attrition bias)	Low risk	No missing outcome data
Selective reporting (reporting bias)	Unclear risk	Insufficient information to permit judgement of 'Low risk' or 'High risk
Other bias	Low risk	The study appears to be free of other sources of bias

Fernandez 2014

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Unclear risk	No description of the methods used to allocate participants to treatment group was given
Allocation concealment (selection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of participants and personnel (performance bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of outcome assessment (detection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Incomplete outcome data (attrition bias)	Low risk	No missing outcome data
Selective reporting (reporting bias)	Unclear risk	Insufficient information to permit judgement of 'Low risk' or 'High risk
Other bias	Low risk	The study appears to be free of other sources of bias

Gutiérrez 2009

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Low risk	The investigators describe a random component in the sequence generation process (Random number table)
Allocation concealment (selection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of participants and personnel (performance bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of outcome assessment (detection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Incomplete outcome data (attrition bias)	Low risk	No missing outcome data
Selective reporting (reporting bias)	Unclear risk	Insufficient information to permit judgement of 'Low risk' or 'High risk
Other bias	Low risk	The study appears to be free of other sources of bias

Hernández 2003

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Unclear risk	No description of the methods used to allocate participants to treatment group was given
Allocation concealment (selection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of participants and personnel (performance bias)	Low risk	No blinding or incomplete blinding, but the review authors judge that the outcome is not likely to be influenced by lack of blinding
Blinding of outcome assessment (detection bias)	Low risk	Blinding of outcome assessment ensured, and unlikely that the blinding could have been broken
Incomplete outcome data (attrition bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Selective reporting (reporting bias)	Unclear risk	Insufficient information to permit judgement of 'Low risk' or 'High risk
Other bias	Low risk	The study appears to be free of other sources of bias

Holguín 2007

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	High risk	The investigators describe a non-random component in the sequence generation process (Assignment performed by day of hospital attendance)
Allocation concealment (selection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of participants and personnel (performance bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of outcome assessment (detection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Incomplete outcome data (attrition bias)	Low risk	No missing outcome data
Selective reporting (reporting bias)	Unclear risk	Insufficient information to permit judgement of 'Low risk' or 'High risk'
Other bias	Low risk	The study appears to be free of other sources of bias

Juárez 2013

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	High risk	The investigators describe a non-random component in the sequence generation process (Patient were assigned by an advisory board)
Allocation concealment (selection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of participants and personnel (performance bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of outcome assessment (detection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Incomplete outcome data (attrition bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Selective reporting (reporting bias)	Unclear risk	Insufficient information to permit judgement of 'Low risk' or 'High risk'
Other bias	Low risk	The study appears to be free of other sources of bias

López 2002

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	High risk	The investigators describe a non-random component in the sequence generation process (Assignment performed by clinical registration number)
Allocation concealment (selection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of participants and personnel (performance bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of outcome assessment (detection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Incomplete outcome data (attrition bias)	High risk	High levels of attrition: Around 31%-37% of participants were lost at follow-up
Selective reporting (reporting bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Other bias	Low risk	The study appears to be free of other sources of bias

López 2015

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	High risk	The investigators describe a non-random component in the sequence generation process (Assignment performed by day of birth)
Allocation concealment (selection bias)	High risk	Participants or investigators enrolling participants could possibly foresee assignments and thus introduce selection bias (Assignment performed by day of birth)
Blinding of participants and personnel (performance bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of outcome assessment (detection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Incomplete outcome data (attrition bias)	High risk	High levels of attrition: 46.1% of participants were lost at follow-up
Selective reporting (reporting bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Other bias	Low risk	The study appears to be free of other sources of bias

Marquéz 2015

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Unclear risk	No description of the methods used to allocate participants to treatment group was given
Allocation concealment (selection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of participants and personnel (performance bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of outcome assessment (detection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Incomplete outcome data (attrition bias)	Low risk	No missing outcome data
Selective reporting (reporting bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Other bias	Low risk	The study appears to be free of other sources of bias

Martínez 2003

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	High risk	The investigators describe a non-random component in the sequence generation process.(sequential assignment)
Allocation concealment (selection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of participants and personnel (performance bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of outcome assessment (detection bias)	Unclear risk	Blinding of outcome assessment ensured, and unlikely that the blinding could have been broken
Incomplete outcome data (attrition bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Selective reporting (reporting bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Other bias	Low risk	The study appears to be free of other sources of bias

Martínez 2015

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Low risk	The investigators describe a random component in the sequence generation process (computer random number generator)
Allocation concealment (selection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of participants and personnel (performance bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of outcome assessment (detection bias)	Low risk	Blinding of outcome assessment ensured, and unlikely that the blinding could have been broken
Incomplete outcome data (attrition bias)	Low risk	No missing outcome data
Selective reporting (reporting bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Other bias	Low risk	The study appears to be free of other sources of bias

Mas-Atance 2001

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Unclear risk	No description of the methods used to allocate participants to treatment group was given
Allocation concealment (selection bias)	Low risk	Participants and investigators enrolling participants could not foresee assignment (opaque, sealed envelopes)
Blinding of participants and personnel (performance bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of outcome assessment (detection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Incomplete outcome data (attrition bias)	Low risk	No missing outcome data
Selective reporting (reporting bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Other bias	Low risk	The study appears to be free of other sources of bias

Mencia 2005

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Unclear risk	No description of the methods used to allocate participants to treatment group was given
Allocation concealment (selection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of participants and personnel (performance bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of outcome assessment (detection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Incomplete outcome data (attrition bias)	Low risk	No missing outcome data
Selective reporting (reporting bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Other bias	Low risk	The study appears to be free of other sources of bias

Molano 2015

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Low risk	The investigators describe a random component in the sequence generation process (random number table)
Allocation concealment (selection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of participants and personnel (performance bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of outcome assessment (detection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Incomplete outcome data (attrition bias)	Low risk	No missing outcome data
Selective reporting (reporting bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Other bias	Low risk	The study appears to be free of other sources of bias

Olivares 2004

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Low risk	The investigators describe a random component in the sequence generation process (shuffling cards)
Allocation concealment (selection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of participants and personnel (performance bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of outcome assessment (detection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Incomplete outcome data (attrition bias)	Low risk	No missing outcome data
Selective reporting (reporting bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Other bias	Low risk	The study appears to be free of other sources of bias

Ortíz 2014

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	High risk	The investigators describe a non-random component in the sequence generation process (Assignment performed by the age of patient)
Allocation concealment (selection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of participants and personnel (performance bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of outcome assessment (detection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Incomplete outcome data (attrition bias)	Low risk	No missing outcome data
Selective reporting (reporting bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Other bias	Low risk	The study appears to be free of other sources of bias

Palma 2015

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Low risk	The investigators describe a random component in the sequence generation process (computer random number generator) Algoritmo generado por computador
Allocation concealment (selection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of participants and personnel (performance bias)	Low risk	Blinding of participants and key study personnel ensured, and unlikely that the blinding could have been broken
Blinding of outcome assessment (detection bias)	Low risk	Blinding of outcome assessment ensured, and unlikely that the blinding could have been broken
Incomplete outcome data (attrition bias)	High risk	'As-treated' analysis done with substantial departure of the intervention received from that assigned at randomization
Selective reporting (reporting bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Other bias	Low risk	The study appears to be free of other sources of bias

Pereda 2006

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Low risk	The investigators describe a random component in the sequence generation process (computer random number generator)
Allocation concealment (selection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of participants and personnel (performance bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of outcome assessment (detection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Incomplete outcome data (attrition bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Selective reporting (reporting bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Other bias	Low risk	The study appears to be free of other sources of bias

Pescador 2011

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Unclear risk	No description of the methods used to allocate participants to treatment group was given
Allocation concealment (selection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of participants and personnel (performance bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of outcome assessment (detection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Incomplete outcome data (attrition bias)	Low risk	the proportion of missing outcomes compared with observed event risk not enough to have a clinically relevant impact on the intervention effect estimate (5.2%)
Selective reporting (reporting bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Other bias	Low risk	The study appears to be free of other sources of bias

Pesciallo 2009

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	High risk	The investigators describe a non-random component in the sequence generation process (Assignment by even/odd knee)
Allocation concealment (selection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of participants and personnel (performance bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of outcome assessment (detection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Incomplete outcome data (attrition bias)	Low risk	No missing outcome data
Selective reporting (reporting bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Other bias	Low risk	The study appears to be free of other sources of bias

Pesciallo 2015

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Unclear risk	No description of the methods used to allocate participants to treatment group was given
Allocation concealment (selection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of participants and personnel (performance bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of outcome assessment (detection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Incomplete outcome data (attrition bias)	Low risk	No missing outcome data
Selective reporting (reporting bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Other bias	Low risk	The study appears to be free of other sources of bias

Prieto 2009

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	High risk	The investigators describe a non-random component in the sequence generation process (Order by exit of surgery was used)
Allocation concealment (selection bias)	High risk	Participants or investigators enrolling participants could possibly foresee assignments and thus introduce selection bias (Order by exit of surgery was used)
Blinding of participants and personnel (performance bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of outcome assessment (detection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Incomplete outcome data (attrition bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Selective reporting (reporting bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Other bias	Low risk	The study appears to be free of other sources of bias

Pérez 2011

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Unclear risk	No description of the methods used to allocate participants to treatment group was given
Allocation concealment (selection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of participants and personnel (performance bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of outcome assessment (detection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Incomplete outcome data (attrition bias)	Low risk	No missing outcome data
Selective reporting (reporting bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Other bias	Low risk	The study appears to be free of other sources of bias

Restrepo 2007

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Low risk	The investigators describe a random component in the sequence generation process (Random number table)
Allocation concealment (selection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of participants and personnel (performance bias)	Low risk	Blinding of participants and key study personnel ensured, and unlikely that the blinding could have been broken
Blinding of outcome assessment (detection bias)	Low risk	Blinding of outcome assessment ensured, and unlikely that the blinding could have been broken
Incomplete outcome data (attrition bias)	Low risk	No missing outcome data
Selective reporting (reporting bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Other bias	Low risk	The study appears to be free of other sources of bias

Rojas 2005

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of
Allocation concealment (selection bias)	Unclear risk	No description of the methods used to allocate participants to treatment group was given
Blinding of participants and personnel (performance bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of outcome assessment (detection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Incomplete outcome data (attrition bias)	Low risk	No missing outcome data
Selective reporting (reporting bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Other bias	Low risk	The study appears to be free of other sources of bias

Salles 2012

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Unclear risk	No description of the methods used to allocate participants to treatment group was given
Allocation concealment (selection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of participants and personnel (performance bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of outcome assessment (detection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Incomplete outcome data (attrition bias)	Low risk	No missing outcome data
Selective reporting (reporting bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Other bias	Low risk	The study appears to be free of other sources of bias

Sangüesa 2006

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Unclear risk	No description of the methods used to allocate participants to treatment group was given
Allocation concealment (selection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of participants and personnel (performance bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of outcome assessment (detection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Incomplete outcome data (attrition bias)	Low risk	No missing outcome data
Selective reporting (reporting bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Other bias	Low risk	The study appears to be free of other sources of bias

Sebastián 2001

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Unclear risk	No description of the methods used to allocate participants to treatment group was given
Allocation concealment (selection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of participants and personnel (performance bias)	Unclear risk	No blinding or incomplete blinding, but the review authors judge that the outcome is not likely to be influenced by lack of blinding
Blinding of outcome assessment (detection bias)	Low risk	No blinding of outcome assessment, but the review authors judge that the outcome measurement is not likely to be influenced by lack of blinding
Incomplete outcome data (attrition bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Selective reporting (reporting bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Other bias	Low risk	The study appears to be free of other sources of bias

Sebastián 2012

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Unclear risk	No description of the methods used to allocate participants to treatment group was given
Allocation concealment (selection bias)	Unclear risk	No description of the methods used to allocate participants to treatment group was given
Blinding of participants and personnel (performance bias)	High risk	No blinding or incomplete blinding, and the outcome is likely to be influenced by lack of blinding
Blinding of outcome assessment (detection bias)	High risk	No blinding of outcome assessment, and the outcome measurement is likely to be influenced by lack of blinding
Incomplete outcome data (attrition bias)	Low risk	No missing outcome data
Selective reporting (reporting bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Other bias	Low risk	The study appears to be free of other sources of bias

Sánchez 2000

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	High risk	The investigators describe a non-random component in the sequence generation process (Assignment performed by day of hospital appointment)
Allocation concealment (selection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of participants and personnel (performance bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of outcome assessment (detection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Incomplete outcome data (attrition bias)	Low risk	No missing outcome data
Selective reporting (reporting bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Other bias	Low risk	The study appears to be free of other sources of bias

Trueba 2003

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Unclear risk	No description of the methods used to allocate participants to treatment group was given
Allocation concealment (selection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of participants and personnel (performance bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of outcome assessment (detection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Incomplete outcome data (attrition bias)	Low risk	No missing outcome data
Selective reporting (reporting bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Other bias	Low risk	The study appears to be free of other sources of bias

Utrilla 1998

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	High risk	The investigators describe a non-random component in the sequence generation process (Assignment performed by day of hospital admission)
Allocation concealment (selection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of participants and personnel (performance bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of outcome assessment (detection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Incomplete outcome data (attrition bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Selective reporting (reporting bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Other bias	Low risk	The study appears to be free of other sources of bias

Valles 2011

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Unclear risk	No description of the methods used to allocate participants to treatment group was given
Allocation concealment (selection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of participants and personnel (performance bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of outcome assessment (detection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Incomplete outcome data (attrition bias)	Low risk	No missing outcome data
Selective reporting (reporting bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Other bias	Low risk	The study appears to be free of other sources of bias

Varela 2010

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Low risk	The investigators describe a random component in the sequence generation process (Random number table)
Allocation concealment (selection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of participants and personnel (performance bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of outcome assessment (detection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Incomplete outcome data (attrition bias)	Low risk	No missing outcome data
Selective reporting (reporting bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Other bias	Low risk	The study appears to be free of other sources of bias

Vargas-Mena 2012

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Unclear risk	No description of the methods used to allocate participants to treatment group was given
Allocation concealment (selection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of participants and personnel (performance bias)	Low risk	Blinding of participants and key study personnel ensured, and unlikely that the blinding could have been broken
Blinding of outcome assessment (detection bias)	Low risk	No blinding of outcome assessment, but the review authors judge that the outcome measurement is not likely to be influenced by lack of blinding
Incomplete outcome data (attrition bias)	Low risk	No missing outcome data
Selective reporting (reporting bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Other bias	Low risk	The study appears to be free of other sources of bias

Vega 2002

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Unclear risk	No description of the methods used to allocate participants to treatment group was given
Allocation concealment (selection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of participants and personnel (performance bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of outcome assessment (detection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Incomplete outcome data (attrition bias)	Low risk	No missing outcome data
Selective reporting (reporting bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Other bias	Low risk	The study appears to be free of other sources of bias

Vidal 2000

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Unclear risk	No description of the methods used to allocate participants to treatment group was given
Allocation concealment (selection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of participants and personnel (performance bias)	Low risk	Blinding of participants and key study personnel ensured, and unlikely that the blinding could have been broken
Blinding of outcome assessment (detection bias)	Low risk	Blinding of outcome assessment ensured, and unlikely that the blinding could have been broken
Incomplete outcome data (attrition bias)	Low risk	No missing outcome data
Selective reporting (reporting bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Other bias	Low risk	The study appears to be free of other sources of bias

Vincent 2007

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Low risk	The investigators describe a random component in the sequence generation process (Random number list)
Allocation concealment (selection bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Blinding of participants and personnel (performance bias)	Low risk	Blinding of participants and key study personnel ensured, and unlikely that the blinding could have been broken
Blinding of outcome assessment (detection bias)	Low risk	Blinding of outcome assessment ensured, and unlikely that the blinding could have been broken
Incomplete outcome data (attrition bias)	Low risk	No missing outcome data
Selective reporting (reporting bias)	Unclear risk	Insufficient information to judge this item as low or high risk of bias
Other bias	Low risk	The study appears to be free of other sources of bias