

Supplementary Appendix file 1: Search strategy

Search strategy of PubMed as follows:

#1 “Hip” [MeSH Terms] OR Hips [tiab] OR Coxa [tiab] OR Coxas [tiab]

#2 “arthroscopy” [Mesh] or Arthroscopies[af] or Arthroscopic Surgical Procedures [af] or Arthroscopic Surgical Procedure[af] or Procedure, Arthroscopic Surgical[af] or Procedures, Arthroscopic Surgical[af] or Surgical Procedure, Arthroscopic[af] or Surgery, Arthroscopic [af] or Surgical Procedures, Arthroscopic[af] or Arthroscopic Surgery [af] or Arthroscopic Surgeries[af] or Surgeries, Arthroscopic[af]

#3 #1 AND #2

#4 “Hip Fracture” [Mesh] OR “Femoral Neck Fractures” [Mesh] OR Femoral Neck Fracture [tiab] OR Femur Neck Fractures[tiab] OR Femur Neck Fracture [tiab] OR Fractures, Hip [af] OR Trochanteric Fractures [af] OR Fractures, Trochanteric [af] OR Intertrochanteric Fractures [af] OR Fractures, Intertrochanteric [af] OR Subtrochanteric Fractures [af] OR Fractures, Subtrochanteric [af] Femoral Fracture[af] OR Fracture, Femoral [af] OR Fractures, Femoral [af] (hip* or intertrochanteric or subtrochanteric or trochanteric or pertrochanteric or peritrochanteric or femur or femoral or acetabul*) AND fracture*

#5 “Osteoarthritis, Hip” [Mesh] OR Hip Osteoarthritis[af] OR Osteoarthritis Of Hip [af] OR Osteoarthritis Of Hips[af] OR Coxarthrosis [af] OR Coxarthroses [af] OR Osteoarthritis of the Hip[af]

#6 Hip Injuries [Mesh] OR Hip Dislocation [Mesh] OR Injuries, Hip [af] OR Dislocation, Hip [af] OR Dislocations, Hip[af] OR Hip Dislocations[af] OR Hip Displacement[af] OR Displacement, Hip[af] OR Displacements, Hip[af] OR Hip Displacements[af] OR Hip Dysplasia[af] OR Dysplasia, Hip[af] OR Dysplasias, Hip[af] OR Hip Dysplasias [af]

#7 “Hip Prosthesis” [Mesh] OR “Arthroplasty, Replacement, Hip” [Mesh] OR Hip Prostheses [af] OR Prostheses, Hip[af] OR Prosthesis, Hip[af] OR Femoral Head Prosthesis[af] OR Femoral Head Prostheses[af] OR Prostheses, Femoral Head [af] OR Prosthesis, Femoral Head [af] OR Arthroplasties, Replacement, Hip [af] OR Arthroplasty, Hip Replacement [af] OR Hip Prosthesis Implantation [af] OR Hip Prosthesis Implantations [af] OR Implantation, Hip Prosthesis [af] OR Prosthesis Implantation, Hip [af] OR Hip Replacement Arthroplasty [af] OR Replacement Arthroplasties, Hip [af] OR Replacement Arthroplasty, Hip [af] OR Arthroplasties, Hip

Replacement [af] OR Hip Replacement Arthroplasties [af] OR Hip Replacement, Total [af] OR Total Hip Replacement [af] OR Total Hip Arthroplasty [af] OR Arthroplasty, Total Hip [af] OR Hip Arthroplasty, Total [af] OR Total Hip Arthroplasties [af] OR Replacement, Total Hip [af] OR Total Hip Replacements [af]

#8 #3 OR #4 OR #5 OR #6 OR #7

#9 "Aged" [Mesh] or "Aged, 80 and over"[Mesh] or "Aged, 65 and over"[Mesh] or Centenarians [Mesh] or Nonagenarians [Mesh] or Octogenarians [Mesh] or Geriatrics [Mesh] or Elderly [af] or Centenarian [af] or Nonagenarian [af] or Oldest Old [af] or Octogenarian [af] or aging [af] or aged [af] or elderly[af] or senior [af] or old [af] or old-age[af].

#10 "pericapsular nerve group block" [af] OR PENG [af]

#11 #8 AND #9 AND #10

#12 "controlled clinical trial" [Publication Type] OR "randomized controlled trial" [Publication Type] OR "randomized" [Title/Abstract] OR "randomized" [Title/Abstract] OR "Placebo" [Title/Abstract] OR "randomly" [Title/Abstract] OR "Clinical trial" [Title]

#13 (animals [MeSH Terms]) NOT ((human [MeSH Terms]) AND (animals [MeSH Terms]))

#14 #11 and #12 not #13

Search strategy of Cochrane library as follows:

#1 MeSH descriptor: [Hip] explode all trees.

#2 (Hips OR Coxa OR Coxas): ti,ab,kw

#3 #1 or # 2

#4 MeSH descriptor: [arthroscopy] explode all trees

#5 (arthroscop*): ti,ab,kw

#6 #4 or # 5

#7 #3 and # 6

#8 MeSH descriptor: [Hip Fracture] explode all trees

#9 (hip surgery OR hip prosthesis* OR hip replacement* OR hip arthroplast* OR femoral head prosthesis* OR joint prosthesis*): ti,ab,kw

#10 ((hip* or femur* or intertrochanter* or trochanter* or pertrochanter* or intertrochanter* or peritrochanter* or subtrochanter* or intracapsular* or extracapsular* or acetabulum*) and fracture*)

#11 MeSH descriptor: [Osteoarthritis, Hip] explode all trees

#12 (Hip Osteoarthritis OR Osteoarthritis Of Hip OR Osteoarthritis Of Hips OR Coxarthrosis OR Coxarthroses OR Osteoarthritis of the Hip): ti,ab,kw

#13 MeSH descriptor: [Hip Injuries] explode all trees

#14 ((disloca* or displace* or dysplas*) and hip*)

#15 #7 or #8 or #9 or #10 or #11 or #12 or #13 or #14

#16 MeSH descriptor: [Aged] explode all trees

#17 MeSH descriptor: [Aged, 80 and over] explode all trees

#18 MeSH descriptor: [Aged, 65 and over] explode all trees

#19 MeSH descriptor: [Geriatrics] explode all trees

#20 MeSH descriptor: [Nonagenarians] explode all trees

#21 MeSH descriptor: [Octogenarians] explode all trees

#22((Geriatric* or Elder* or old-age or pensioner* or aging or aged or elderly or senior or old or Oldest Old or old-age or Nonagenarian* or Octogenarian*)

#23 #16 or #17 or #18 or #19 or #20 or #21 or #22

#24 (pericapsular nerve group block or PENG): ti,ab,kw

#25 (controlled clinical trial):pt or (randomized controlled trial):pt or (random*): ti,ab,kw or (Clinical trial):ti,ab,kw

#26 #15 and #23 and #24 and #25

Search strategy of Web of Science as follows:

#1 TS= (Hip or Hips or Coxa or Coxas)

#2 TS= (arthroscop*)

#3 #1 and #2

#4 TS= (Hip* or femu* or femo* or intertrochant* or trochant* or pertrochant* or intertrochant* or peritrochant* or subtrochant* or intracapsular* or extracapsular* or acetabul*)

#5 TS= (fracture*)

#6 #4 and #5

#7 TS= (Hip Osteoarthritis or Osteoarthritis of Hip or Osteoarthritis of Hips or Coxarthrosis or Coxarthroses or Osteoarthritis of the Hip)

#8 TS= (Hip Injuries or Hip disloca* or Hip displace* or Hip dysplas*)

#9 #3 OR #6 OR #7 OR #8

#10 TS= (Geriatric* or Elder* or old-age or pensioner* or aging or aged or elderly or senior or old or Oldest Old or old-age or Nonagenarian* or Octogenarian*)

#11 TS= (pericapsular nerve group block or PENG)

#12 TS= (random* or Clinical trial)

#13 #9 and #10 and #11 and #12

Search strategy for Ovid Medline as follows:

#1 exp Hip/

#2 (Hips OR Coxa OR Coxas) .mp.

#3 #1 or # 2

#4 exp arthroscopy/

#5 (arthroscop*).mp.

#6 #4 or # 5

#7 #3 and # 6

#8 exp Hip Fracture/

#9 (hip surgery OR hip prothes* OR hip replacement* OR hip arthroplast* OR femoral head prothes* OR joint prothes*).mp.

#10 ((hip* or fem*r* or intertrochant* or trochant* or pertrochant* or intertrochant* or peritrochant* or subtrochant* or intracapsular* or extracapsular* or acetabul*) and fracture*).mp.

#11 exp Osteoarthritis, Hip/

#12 (Hip Osteoarthritis or Osteoarthritis of Hip or Osteoarthritis of Hips or Coxarthrosis or Coxarthroses or Osteoarthritis of the Hip) .mp.

#13 exp Hip Injuries/

#14 ((disloca* or displace* or dysplas*) and hip*).mp.

#15 #7 or #8 or #9 or #10 or #11 or #12 or #13 or #14

#16 exp Aged/

#17 exp Aged, 80 and over/

#18 exp Aged, 65 and over/

#19 exp Geriatrics/

#20 exp Nonagenarians/

#21 exp Octogenarians/

#22((Geriatric* or Elder* or old-age or pensioner*or aging or aged or elderly or senior or old or Oldest Old or old-age or Nonagenarian* or Octogenarian*).mp.

#23 #16 or #17 or #18 or #19 or #20 or #21 or #22

#24 (pericapsular nerve group block or PENG) .mp.

#25 #15 and #23 and #24

#26 randomized controlled trial.pt.

#27controlled clinical trial.pt.

#28 randomized.ab.

#29 placebo.ab.

#30 clinical trials as topic.sh.

#31 randomly.ab.

#32 trial.ti.

#33 #26 or #27 or #28 or #29 or #30 or #31 or #32

#34 (animals not (humans and animals)).sh.

#35 #25 and #33 not #34

Search strategy for Embase as follows:

#1 exp Hip/

#2 (Hips OR Coxa OR Coxas) .mp.

#3 #1 or # 2

#4 exp arthroscopy/

#5 (arthroscop*).mp.

#6 #4 or # 5

#7 #3 and # 6

#8 exp Hip Fracture/

#9 (hip surgery OR hip prothes* OR hip replacement* OR hip arthroplast* OR femoral head prothes* OR joint prothes*).mp.

#10 ((hip* or fem?r* or intertrochant* or trochant* or pertrochant* or intertrochant* or petritrochant* or subtrochant* or intracapsular* or extracapsular* or acetabul*) and fracture*).mp.

#11 exp Osteoarthritis, Hip/

#12 (Hip Osteoarthritis or Osteoarthritis of Hip or Osteoarthritis of Hips or Coxarthrosis or

Coxarthroses or Osteoarthritis of the Hip) .mp.

#13 exp Hip Injuries/

#14 ((disloca* or displace* or dysplas*) and hip*).mp.

#15 #7 or #8 or #9 or #10 or #11 or #12 or #13 or #14

#16 exp Aged/

#17 exp Aged, 80 and over/

#18 exp Aged, 65 and over/

#19 exp Geriatrics/

#20 exp Nonagenarians/

#21 exp Octogenarians/

#22((Geriatric* or Elder* or old-age or pensioner*or aging or aged or elderly or senior or old or Oldest Old or old-age or Nonagenarian* or Octogenarian*).mp.

#23 #16 or #17 or #18 or #19 or #20 or #21 or #22

#24 (pericapsular nerve group block or PENG) .mp.

#25 #15 and #23 and #24

#26 exp randomized controlled trial/

#27(random*).mp.

#28 (placebo*).mp.

#29 Clinical trial.mp.

#30 clinical trials as topic.sh.

#31 #26 or #27 or #28 or #29 or #30

#32 (exp animal/ or nonhuman/ or exp animal experiment/) not human/

#33 #25 and #31 not #32

WHO ICTRP Trial registry

<http://apps.who.int/trialsearch> (WHO ICTRP register) will be searched via the advanced search page.

Search terms were: (Hips OR Coxa OR Coxas or fem?r* or intertrochant* or trochant* or pertrochant* or intertrochant* or peritrochant* or subtrochant* or intracapsular* or extracapsular* or acetabul*) AND (Geriatric* or Elder* or old-age or pensioner*or aging or aged or elderly or senior or old or Oldest Old or old-age or Nonagenarian* or Octogenarian*) AND (pericapsular nerve group block or PENG).

Clinicaltrials.gov search strategy

<http://clinicaltrials.gov> (NIH register) will be searched via advanced search page. Search terms were:

Condition or disease: (Hips OR Coxa OR Coxas or fem?r* or intertrochant* or trochant* or pertrochant* or intertrochant* or peritrochant* or subtrochant* or intracapsular* or extracapsular* or acetabul*) AND (Geriatric* or Elder* or old-age or pensioner* or aging or aged or elderly or senior or old or Oldest Old or old-age or Nonagenarian* or Octogenarian*).

Study type: Interventional Studies.

Intervention/treatment: (pericapsular nerve group block or PENG)

Chinese database

China National Knowledge Infrastructure (CNKI) search strategy

(髌[全部字段]or 关节[全部字段]or 股骨头[全部字段]or 关节唇[全部字段]or 股骨颈 [全部字段] or 转子 [全部字段] or 骨盆 [全部字段] or 关节炎[全部字段] or 骨折[全部字段]or 损伤 [全部字段] or 脱位[全部字段] or 撞击[全部字段] or 关节镜[全部字段] or 微创[全部字段] or 保守[全部字段]or 置换[全部字段] or 成形[全部字段] or 假体[全部字段] or 固定[全部字段] or 外伤[全部字段]) and (关节囊周[全部字段] or PENG[全部字段] or 阻滞 [全部字段]) and (老年[全部字段] or 高龄[全部字段] or 老龄 or 80 岁以上[全部字段]) and (随机[全部字段] or 对照[全部字段])

Chinese BioMedical Literature (CBM)

(髌[全部字段] or 关节[全部字段] or 股骨头[全部字段]or 关节唇[全部字段] or 股骨颈 [全部字段] or 转子 [全部字段] or 骨盆 [全部字段] or 关节炎[全部字段] or 骨折[全部字段]or 损伤 [全部字段] or 脱位[全部字段] or 撞击[全部字段] or 关节镜[全部字段] or 微创[全部字段] or 保守[全部字段]or 置换[全部字段] or 成形[全部字段] or 假体[全部字段] or 固定[全部字段] or 外伤[全部字段]) and (关节囊周[全部字段] or PENG[全部字段] or 阻滞 [全部字段]) and (老年[全部字段] or 高龄[全部字段] or 老龄 or 80 岁以上[全部字段]) and (随机[全部字段] or 对照[全部字段])

VIP database

关键词=(髌 or 关节 or 股骨头 or 关节唇 or 股骨颈 or 转子 or 骨盆 or 关节炎 or 骨折 or 损伤 or 脱位 or 撞击 or 关节镜 or 微创 or 保守 or 置换 or 成形 or 假体 or 固定 or 外伤) AND 关键词=(老年 or 高龄 or 老龄 or 80 岁以上) AND 关键词=(关节囊周 or PENG or 阻滞) AND

关键词=(随机 or 对照)

Wan fang database.

(髌[全部字段]or 关节[全部字段]股骨头[全部字段]or 关节唇[全部字段]or 股骨颈 [全部字段] or 转子 [全部字段] or 骨盆 [全部字段] or 关节炎[全部字段] or 骨折[全部字段]or 损伤[全部字段] or 脱位[全部字段] or 撞击[全部字段] or 关节镜[全部字段] or 微创[全部字段] or 保守[全部字段]or 置换[全部字段] or 成形[全部字段] or 假体[全部字段] or 固定[全部字段] or 外伤[全部字段]) and (关节囊周[全部字段] or PENG[全部字段] or 阻滞 [全部字段]) and (老年[全部字段] or 高龄[全部字段] or 老龄 or 80 岁以上[全部字段]) and (随机[全部字段] or 对照[全部字段])