Lancashire and South Cumbria Integrated Care Board

Policy for surgery for hip and knee replacement (arthroplasty)

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Purpose	This document is part of a suite of policies that the Integrated Care Board (ICB) uses to drive its commissioning of healthcare. Each policy in that suite is a separate public document in its own right but will be applied with reference to other policies in that suite.
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1. Policy Criteria

1.1 Joint replacement (arthroplasty) surgery for hip or knee is routinely commissioned if all of the statements (1.1.1 to 1.1.4) are satisfied.

1.1.1 For each patient, all of the following criteria must be satisfied:-

- Patient's symptoms (pain, stiffness, reduced function or progressive joint deformity) are having a substantial impact on their quality-of-life
- Symptoms persist despite at least a 3 months' trial of conservative measures (such as analgesics, prescribed exercises)
- There is radiographic confirmation of diagnosis.

1.1.2 Patients are given advice on preoperative lifestyle modifications (e.g. exercise, weight management, diet and smoking cessation)

1.1.3 The decision to go ahead with surgery follows a shared decision-making process between the patient and clinician following a discussion regarding the alternatives, benefits and risks and provision of appropriate information.

1.1.4 Patient specific factors such as age, sex, smoking, overweight or obesity and comorbidities should not be barriers to referral. The impact of these on surgical outcome should be explained to the patient.

1.2 Patient specific instrumentation techniques are not routinely commissioned unless the case is complex, conventional instrumentation is unsuitable, and its use has been approved by a local or regional multidisciplinary team (MDT) for that individual.

1.3 Custom (patient specific) implants are not routinely commissioned unless the case is complex, and its use has been approved by a local or regional multidisciplinary team (MDT) for that individual.

1.4 **Exclusions**

1.2.1 Patients undergoing revision of a previous joint replacement are excluded from this commissioning statement.

1.2.2 Patients with previous surgery on the joint are excluded from this commissioning statement

1.2.3 Patients with rapidly progressing deterioration over a few weeks or have red flag warning signs for bony metastases* are excluded from this commissioning statement and require urgent referral.

1.2.4 Children and young adults under the age of 17 years are outside the remit of this commissioning statement.

** Red flag symptoms for cancer-related bone pain included severe progressive pain that is worse on movement or at night, inability to bear weight, signs of hypercalcaemia, and pain on direct palpation.*

2 Scope and definitions

2.1 This policy is based on the ICBs Statement of Principles for Commissioning of Healthcare (version in force on the date on which this policy is adopted).

2.2 This policy applies to adults aged 17 years and over who are being considered for primary hip or knee replacement (arthroplasty) surgery for symptomatic joint disease, including osteoarthritis, where symptoms significantly impact quality of life and conservative management has been unsuccessful.

2.3 Hip and knee replacement (arthroplasty) is defined as the surgical replacement of all or part of a damaged hip or knee joint with a prosthetic implant to relieve pain, improve function and enhance quality of life.

2.4 Conservative management may include, but is not limited to, analgesia, exercise therapy, weight management, physical activity modification, patient education and other non-surgical interventions appropriate to the individual's condition.

2.5 This policy relates to planned primary hip and knee replacement procedures and does not apply to emergency surgery, revision arthroplasty, trauma-related indications, or other conditions excluded within this policy

3 Appropriate Healthcare

3.1 Hip and knee replacement surgery is an established treatment option for patients with symptomatic joint disease whose pain, stiffness, reduced function or progressive deformity have a substantial impact on quality of life despite approriate conservative management.

3.2 Patients should be offered evidence-based non-surgical management, including exercise, weight management, patient education and appropriate analgesia, before referral for consideration of joint replacement surgery.

3.3 Referral for specialist assessment should be based on clinical need and the impact of symptoms on the individual and not restricted by virtue of age, sex, smoking status, body mass index (BMI) or the presence of comorbidities alone.

3.4 Decisions regarding surgery should be made through a shared decision-making process between the patient and clinician, taking account of the expected benefits, risks, alternatives to surgery and the individual's preferences and goals.

3.5 This policy supports equitable access to clinically appropriate hip and knee replacement surgery for patients who meet the eligibility criteria set out within this policy.

3.6 If a patient is considered exceptional in relation to the criteria that rely on other Principles, the ICB may consider the principle of appropriateness in the particular circumstances of the patient in question before confirming a decision to provide funding.

4 Effective Healthcare

4.1 Hip and knee replacement surgery is a clinically effective intervention for appropriately selected patients with persistent symptoms arising from osteoarthritis and demonstrates significant improvements in pain, functional ability and health-related quality of life following surgery, with high levels of patient satisfaction and acceptable long-term implant survival. The policy supports access to treatment in line with NICE guidance and promotes shared decision-making between clinicians preferences and expected outcomes. The policy also supports optimisation of patients prior to surgery, where appropriate, to maximise clinical outcomes and minimise avoidable complications.

5 Cost Effectiveness

5.1 Hip and knee replacement surgery are established interventions that are recognised as highly cost-effective when provided to patients meeting the clinical criteria for treatment. Evidence reviewed as part of policy development indicates that joint replacement delivers substantial improvements in quality of life and function at a cost considered acceptable within NHS commissioning thresholds. The policy promotes appropriate use of NHS resources by ensuring that surgery is targeted towards patients with clinically significant symptoms who have not responded adequately to conservative measures. In addition, the policy does not routinely commission patient-specific instrumentation or patient-specific implants, as the available evidence does not demonstrate sufficient clinical benefit or value for money when compared with standard approaches.

6 Ethics

6.1 The policy has been developed in accordance with the principles of equity, fairness and patient-centred care. Access to treatment is based on clinical need, symptom burden and the impact on quality of life rather than non-clinical factors. Consistent with NICE guidance, the policy does not restrict referral on the basis of age, sex, gender, body mass index, smoking status or comorbidities. Decisions regarding treatment are supported through a shared decision-making process, ensuring that patients are fully informed of the potential benefits, limitations and risks of surgery and are able to participate meaningfully in decisions about their care.

7 Affordability

7.1 The policy is not expected to result in a significant increase in demand beyond that associated with the adoption of updated NICE guidance and the establishment of a consistent commissioning position across the ICB. The policy largely reflects existing clinical practice and codifies evidence-based referral criteria already used within NHS services. Any financial impact arising from increased consistency of access will need to be monitored through existing contract management and activity monitoring arrangements. The policy is also expected to support affordability through appropriate patient selection and by not routinely commissioning patient-specific instrumentation or patient-specific implants where there is insufficient evidence of additional clinical benefit.

8 Exceptions

8.1 The ICB will consider exceptions to this policy in accordance with the Policy for Considering Applications for Exceptionality to Commissioning Policies.

9 Force

9.1 This policy remains in force until it is superseded by a revised policy.

10 References

- McDonald S, Page MJ, Beringer K, et al. Preoperative education for hip or knee replacement. *Cochrane Database of Systematic Reviews* 2014 doi: Preoperative education for hip or knee replacement | Cochrane
- Total hip replacement and resurfacing arthroplasty for end stage arthritis of the hip. Technology appraisal guidance. London: National Institute for health and care excellence, 2014:TA 304.
- Commissioning guide: pain arising from the hip in adults. London: Royal College of surgeons of England, 2017:21.
- Adie S, Harris I, Chuan A, et al. Selecting and optimising patients for total knee arthroplasty. *Med J Aust* 2019;210:135-41. doi: https://dx.doi.org/10.5694/mja2.12109
- Commissioning guide: Painful osteoarthritis of the knee. London: Royal College of surgeons, 2017:22.
- Briggs T. A national review of adult elective orthopaedic services in England. London: Getting it right first time (GIRFT), 2015:68.
- Gunther KP, Deckert S, Lutzner C, et al. Total Hip Replacement for Osteoarthritis-Evidence-Based and Patient-Oriented Indications. *Deutsches Arzteblatt International* 2021;118:730-36. doi: https://dx.doi.org/10.3238/arztebl.m2021.0323
- Shan L, Shan B, Graham D, et al. Total hip replacement: a systematic review and meta-analysis on mid-term quality of life. *Osteoarthritis Cartilage* 2014;22:389-406. doi: https://dx.doi.org/10.1016/j.joca.2013.12.006
- Aujla RS, Esler CN. Total Knee Arthroplasty for Osteoarthritis in Patients Less Than Fifty-Five Years of Age: A Systematic Review. *J Arthroplasty* 2017;32:2598-603.e1. doi: https://dx.doi.org/10.1016/j.arth.2017.02.069
- Vulcano E, Memtsoudis S, Della Valle AG. Bilateral total knee arthroplasty guidelines: are we there yet? *J Knee Surg* 2013;26:273-9. doi: https://dx.doi.org/10.1055/s-0032-1329721
- Scott CE, Howie CR, MacDonald D, et al. Predicting dissatisfaction following total knee replacement: a prospective study of 1217 patients. *J Bone Joint Surg Br* 2010;92:1253-8. doi: 10.1302/0301-620x.92b9.24394
- Özden VE, Osman WS, Morii T, et al. What Percentage of Patients Are Dissatisfied Post-primary Total Hip and Total Knee Arthroplasty? *The Journal of Arthroplasty* 2025;40:S55-S56. doi: https://doi.org/10.1016/j.arth.2024.10.081
- DeFrance MJ, Scuderi GR. Are 20% of Patients Actually Dissatisfied Following Total Knee Arthroplasty? A Systematic Review of the Literature. *J Arthroplasty* 2023;38:594-99. doi: 10.1016/j.arth.2022.10.011 [published Online First: 20221014]

- Shao Z, Bi S. Patient satisfaction after total hip arthroplasty: Influencing factors. *Front Surg* 2022;9:1043508. doi: 10.3389/fsurg.2022.1043508 [published Online First: 20230130]
- Toms AD. BASK Revision Knee Replacement Guidelines. *Knee* 2020;27:1662-63. doi: https://dx.doi.org/10.1016/j.knee.2020.07.075
- Kalson NS, Mathews JA, Phillips JRA, et al. Revision knee replacement surgery in the NHS: A BASK surgical practice guideline. *Knee* 2021;29:353-64. doi: https://dx.doi.org/10.1016/j.knee.2021.01.032
- An VV, Sivakumar BS, Phan K, et al. Accuracy of MRI-based vs. CT-based patient-specific instrumentation in total knee arthroplasty: A meta-analysis. *J Orthop Sci* 2017;22:116-20. doi: https://dx.doi.org/10.1016/j.jos.2016.10.007
- Moret CS, Schelker BL, Hirschmann MT. Clinical and Radiological Outcomes after Knee Arthroplasty with Patient-Specific versus Off-the-Shelf Knee Implants: A Systematic Review. *Journal of Personalized Medicine* 2021;11:22. doi: https://dx.doi.org/10.3390/jpm11070590
- Thienpont E, Schwab PE, Fennema P. Efficacy of Patient-Specific Instruments in Total Knee Arthroplasty: A Systematic Review and Meta-Analysis. *J Bone Joint Surg Am* 2017;99:521-30. doi: https://dx.doi.org/10.2106/JBJS.16.00496
- Hinloopen JH, Puijk R, Nolte PA, et al. The efficacy and safety of patient-specific instrumentation in primary total knee replacement: a systematic review and meta-analysis. *Expert Review of Medical Devices* 2023;20:245-52. doi: https://dx.doi.org/10.1080/17434440.2023.2177152
- Alcelik I, Blomfield M, Ozturk C, et al. A comparison of short term radiological alignment outcomes of the patient specific and standard instrumentation for primary total knee arthroplasty: A systematic review and meta-analysis. *Acta Orthop Traumatol Turc* 2017;51:215-22. doi: https://dx.doi.org/10.1016/j.aott.2017.02.001
- Rodrigues AST, Gutierres MAP. Patient-specific instrumentation in total knee arthroplasty. Should we adopt it? *Rev* 2017;52:242-50. doi: https://dx.doi.org/10.1016/j.rboe.2016.06.008
- Huijbregts HJ, Khan RJ, Sorensen E, et al. Patient-specific instrumentation does not improve radiographic alignment or clinical outcomes after total knee arthroplasty. *Acta Orthopaedica* 2016;87:386-94. doi: https://dx.doi.org/10.1080/17453674.2016.1193799
- Goyal T, Tripathy SK. Does Patient-Specific Instrumentations Improve Short-Term Functional Outcomes After Total Knee Arthroplasty? A Systematic Review and Meta-Analysis. *J Arthroplasty* 2016;31:2173-80. doi: https://dx.doi.org/10.1016/j.arth.2016.03.047
- Szczech B, McDermott JD, Issa K, et al. Patient-Specific Instrumentation in Total Knee Arthroplasty: What Is the Evidence? *J Knee Surg* 2016;29:341-5. doi: https://dx.doi.org/10.1055/s-0035-1558859
- Sassoon A, Nam D, Nunley R, et al. Systematic review of patient-specific instrumentation in total knee arthroplasty: new but not improved. *Clin Orthop* 2015;473:151-8. doi: https://dx.doi.org/10.1007/s11999-014-3804-6
- Thienpont E, Schwab PE, Fennema P. A systematic review and meta-analysis of patient-specific instrumentation for improving alignment of the components in total knee replacement. *Bone Joint J* 2014;96-B:1052-61. doi: https://dx.doi.org/10.1302/0301-620X.96B8.33747
- MacDessi S, Marimuthu K, Kumar VS, et al. Patient-specific cutting guides for total knee arthroplasty. *Cochrane Database of Systematic Reviews* 2017 doi: 10.1002/14651858.CD012589

- Leon-Munoz VJ, Martinez-Martinez F, Lopez-Lopez M, et al. Patient-specific instrumentation in total knee arthroplasty. *Expert Review of Medical Devices* 2019;16:555-67. doi: https://dx.doi.org/10.1080/17434440.2019.1627197
- Schonthaler W, Dauwe J, Holzer LA. Patient-specific instrumentation in total knee arthroplasty: a review of the current literature. *Acta Orthop Belg* 2023;89:299-306. doi: https://dx.doi.org/10.52628/89.2.11543
- Theeuwen DMJ, Dorling IM, Most J, et al. Patient-specific instrumentation improved clinical outcome and implant survival but is not superior compared to conventional total knee arthroplasty: Ten years follow-up of a multicenter double-blind randomized controlled trial. *Knee Surg Sports Traumatol Arthrosc* 2024;15:15. doi: https://dx.doi.org/10.1002/ksa.12505
- Dorling IM, Geenen L, Heymans MJLF, et al. Cost-effectiveness of patient specific vs conventional instrumentation for total knee arthroplasty: A systematic review and meta-analysis. *World j* 2023;14:458-70. doi: https://dx.doi.org/10.5312/wjo.v14.i6.458
- Torok L, Javor P, Hartmann P, et al. Should we abandon the patient-specific instrumentation ship in total knee arthroplasty? Not quite yet! *BMC Musculoskeletal Disorders* 2021;22:730. doi: https://dx.doi.org/10.1186/s12891-021-04581-2
- Pelkowski JN, Young PF, O'Connor MI, et al. Patient specific implants versus conventional implants in primary total knee arthroplasty: No significant difference in patient reported outcomes at 5 years. *Journal of Orthopaedics* 2023;46:124-27. doi: https://dx.doi.org/10.1016/j.jor.2023.10.034
- Constantinescu DS, Costello JP, 2nd, Dalling AD, et al. The efficacy of patient specific instrumentation (PSI) in total hip arthroplasty (THA): A systematic review and meta-analysis. *Journal of Orthopaedics* 2022;34:404-13. doi: https://dx.doi.org/10.1016/j.jor.2022.10.001
- Matar HE, Platt SR, Board TN, et al. Overview of Randomized Controlled Trials in Primary Total Hip Arthroplasty (34,020 Patients): What Have We Learnt? *JAAOS: Global Research and Reviews* 2020;4:e20.00120. doi: https://dx.doi.org/10.5435/JAAOSGlobal-D-20-00120
- Comparison of Implant Placement Accuracy between Manual, Robot-Assisted, Computer-Navigated, Augmented Reality Navigated, Patient-Specific Instrumentation, and Accelerometer Navigated Total Hip Arthroplasty: A Systematic Review and Network Meta-Analysis. *JBJS Reviews* 2024;12 doi: https://dx.doi.org/10.2106/JBJS.RVW.24.00120
- Kim Y-H, Yoon S-H, Park J-W. Does Robotic-assisted TKA Result in Better Outcome Scores or Long-Term Survivorship Than Conventional TKA? A Randomized, Controlled Trial. *Clinical Orthopaedics and Related Research®* 2020;478
- Palmer JS, Monk AP, Hopewell S, et al. Surgical interventions for symptomatic mild to moderate knee osteoarthritis. *Cochrane Database of Systematic Reviews* 2019 doi: 10.1002/14651858.CD012128.pub2
- Lutzner J, Deckert S, Lange T, et al. Evidence-based and Patient-centered Indication for Knee Arthroplasty - Update of the Guideline. *Z Orthop Unfall* 2025;163:79-86. doi: https://dx.doi.org/10.1055/a-2288-7254
- Gademan MG, Hofstede SN, Vliet Vlieland TP, et al. Indication criteria for total hip or knee arthroplasty in osteoarthritis: a state-of-the-science overview. *BMC Musculoskeletal Disorders* 2016;17:463.
- Joint replacement (primary): hip, knee and shoulder. NICE guideline. London: National Institute for health and care excellence, 2020:NG 157.

- Osteoarthritis: care and management. Clinical guideline. London: National Institute for Health and Care Excellence, 2014 (Updated 2020):CG177.
- Osteoarthritis in over 16s: diagnosis and management. NICE guideline. London: National institute for health and care excellence, 2022:42.
- Takwale V. GIRFT guidance for clinical and operational practice guidance for patients with hip and knee pain requiring joint replacement surgery. London: Getting it right first time (GIRFT), 2020:31.
- Blandford C. Orthopaedic Elective Surgery: Guide to delivering perioperative ambulatory care for patients with hip and knee pain requiring joint replacement surgery. London: Getting it right first time (GIRFT), 2023:41.
- Wainwright TW, Gill M, McDonald DA, et al. Consensus statement for perioperative care in total hip replacement and total knee replacement surgery: Enhanced Recovery After Surgery (ERAS®) Society recommendations. *Acta Orthopaedica* 2020;91:3-19. doi: 10.1080/17453674.2019.1683790
- Kehlet H, Memtsoudis SG. ERAS guidelines for hip and knee replacement - need for reanalysis of evidence and recommendations? *Acta Orthopaedica* 2020;91:243-45. doi: https://dx.doi.org/10.1080/17453674.2020.1728920
- Hannon CP, Goodman SM, Austin MS, et al. 2023 American College of Rheumatology and American Association of Hip and Knee Surgeons Clinical Practice Guideline for the Optimal Timing of Elective Hip or Knee Arthroplasty for Patients With Symptomatic Moderate-to-Severe Osteoarthritis or Advanced Symptomatic Osteonecrosis With Secondary Arthritis for Whom Nonoperative Therapy Is Ineffective. *Arthritis care & research* 2023;75:2227-38. doi: https://dx.doi.org/10.1002/acr.25175
- Haynes J, Nam D, Barrack RL. Obesity in total hip arthroplasty: does it make a difference? *Bone Joint J* 2017;99-B:31-36. doi: https://dx.doi.org/10.1302/0301-620X.99B1.BJJ-2016-0346.R1
- Rhind JH, Baker C, Roberts PJ. Total Hip Arthroplasty in the Obese Patient: Tips and Tricks and Review of the Literature. *Indian Journal of Orthopaedics* 2020;54:776-83. doi: https://dx.doi.org/10.1007/s43465-020-00164-w
- Salih S, Sutton P. Obesity, knee osteoarthritis and knee arthroplasty: a review. *BMC Sports Sci Med Rehabil* 2013;5:25-25. doi: 10.1186/2052-1847-5-25
- Musbahi O, Hamilton TW, Crellin AJ, et al. The effect of obesity on revision rate in unicompartmental knee arthroplasty: a systematic review and meta-analysis. *Knee Surg Sports Traumatol Arthrosc* 2021;29:3467-77. doi: https://dx.doi.org/10.1007/s00167-020-06297-7
- Godziuk K, Prado CM, Beaupre L, et al. A critical review of weight loss recommendations before total knee arthroplasty. *Joint Bone Spine* 2021;88:105114. doi: https://dx.doi.org/10.1016/j.jbspin.2020.105114
- Shahid A, Thirumaran AJ, Christensen R, et al. Comparison of weight loss interventions in overweight and obese adults with knee osteoarthritis: A systematic review and network meta-analysis of randomized trials. *Osteoarthritis Cartilage* 2024 doi: 10.1016/j.joca.2024.08.012 [published Online First: 20240902]

11 OPCS and ICD Codes

OPCS codes
W371 - Primary total prosthetic replacement of hip joint using cement W381 - Primary total prosthetic replacement of hip joint not using cement W391 - Primary total prosthetic replacement of hip joint NEC

W461 - Primary prosthetic replacement of head of femur using cement W471 - Primary prosthetic replacement of head of femur not using cement W481 - Primary prosthetic replacement of head of femur NEC W931 - Primary hybrid prosthetic replacement of hip joint using cemented acetabular component W941 - Primary hybrid prosthetic replacement of hip joint using cemented femoral component W951 - Primary hybrid prosthetic replacement of hip joint using cement NEC W401 - Primary total prosthetic replacement of knee joint using cement W411 - Primary total prosthetic replacement of knee joint not using cement W421 - Primary total prosthetic replacement of knee joint NEC O181 - Primary hybrid prosthetic replacement of knee joint using cement W581 - Primary resurfacing arthroplasty of joint Z844 - Patellofemoral joint Z845 - Tibiofemoral joint O181 - Primary hybrid prosthetic replacement of knee joint using cement
ICD-10 codes
M150 - Primary generalized (osteo)arthrosis M151 - Heberden nodes (with arthropathy) M152 - Bouchard nodes (with arthropathy) M153 - Secondary multiple arthrosis M154 - Erosive (osteo)arthrosis M158 - Other polyarthrosis M159 - Polyarthrosis, unspecified M160 - Primary coxarthrosis, bilateral M161 - Other primary coxarthrosis M162 - Coxarthrosis resulting from dysplasia, bilateral M163 - Other dysplastic coxarthrosis M164 - Post-traumatic coxarthrosis, bilateral M165 - Other post-traumatic coxarthrosis M166 - Other secondary coxarthrosis, bilateral M167 - Other secondary coxarthrosis M169 - Coxarthrosis, unspecified M170 - Primary gonarthrosis, bilateral M171 - Other primary gonarthrosis M172 - Post-traumatic gonarthrosis, bilateral M173 - Other post-traumatic gonarthrosis M174 - Other secondary gonarthrosis, bilateral M175 - Other secondary gonarthrosis M179 - Gonarthrosis, unspecified