NHS
Cambridgeshire & Peterborough

Surgical Threshold Policy

Primary Knee Replacement Surgery

Scope

This policy covers referrals for primary ***elective*** knee replacement (see note 1 over the page) to replace some or all of the components of the knee joint with a synthetic implant, and repair damaged weight bearing surfaces. **Note: Revision knee replacement is funded by NHS England and not NHS Cambridgeshire & Peterborough (ICB).**

Policy

It is the responsibility of referring and treating clinicians to ensure compliance with this policy. Referral proforma should be attached to the patient notes to aid the clinical audit process and provide evidence of compliance with the policy. For patients not meeting the policy criteria, clinicians can apply for funding to the Exceptional Cases Panel by completing the exceptional funding section of the **referral proforma*.***

NHS C&P (ICB) will **ONLY** fund referral for consideration of knee replacement in patients meeting the following criteria.

1. Uncontrolled, intense, persistent pain resulting in substantial impact on quality of life and moderate functional limitations which have failed a reasonable period of maximal conservative treatment as defined in Table 1 (see note 2 over the page).

   And
2. Symptoms ***refractory*** to ***at least 6 months*** conservative management for the condition.

PRIOR CONSERVATIVE MANAGEMENT MUST INCLUDE ALL OF THE FOLLOWING

Medication

- Optimum tolerated doses of analgesic should be used, and patients should have gained an understanding of how to use oral or topical analgesics (as per **formulary**).
- Intra-articular corticosteroid injections could be considered as an adjunct to analgesia.

And Physiotherapy

- NICE “core” treatments of either guided exercise and muscle strengthening programmes or of supervised physical therapy must have been given.

And Patient Education and Orthosis

- Patient education such as elimination of damaging influence on knees (by reducing weight loading), activity modification (avoid impact and excessive exercise) and lifestyle adjustment.
- Patients must have been advised about, and/or assessed for, clinically appropriate walking aids and home adaptations.

And Lifestyle improvement

All patients should be advised to have a healthy weight. Risks of surgical complications increase in those with higher BMIs. It is strongly advised that, as a minimum, discussion and support is offered to patients with a BMI >30kg/m^2 and patients with a BMI greater than 35 kg/m^2 should be offered referral to a weight management service.

Lifestyle Management Service - to help people lead a healthier life, including access to the weight management service: **Healthy You – https://healthyyou.org.uk/**
Telephone: 0333 005 0093

Smoking:

Patients who smoke should be advised to attempt to stop smoking and referred to stop-smoking services – **see stop smoking policy.**

Note: physiotherapy may be ineffective in bone-on-bone osteoarthritis and, therefore, physiotherapy/exercises may not be relevant to onward referral.

Patella Resurfacing in conjunction with knee replacement will receive the same tariff as knee replacement (where clinically appropriate and patient meets the criteria for knee replacement).

Patella Resurfacing as a stand-alone procedure is a low priority treatment and will not be funded without exceptional cases panel approval.

Patients' (and carers' as appropriate) expectations of surgery, and the likely degree of additional benefit that may be obtained from surgery compared with continuing conservative management, must have been discussed in primary/intermediate care.

Note 1 The policy does not affect criteria for Immediate/Urgent Referral to Orthopaedic Services in respect of:

- Evidence of infection in the knee joint.
- Symptoms indicating a rapid deterioration in the joint.
- Persistent symptoms that are causing severe disability.

Note 2 Table 1 - Classification of surgical criteria:

Level of pain	**Definition**
Slight	▪ Sporadic Pain. ▪ Pain when climbing and descending stairs. ▪ Allows daily activities to be carried out (those requiring great physical ability may be limited). ▪ Medication: Aspirin, Paracetamol or NSAIDs (Non-Steroidal Anti-Inflammatory Drugs) to control pain with no/few side effects.
Moderate	▪ Occasional pain. ▪ Pain when walking on level surfaces (half an hour or standing). ▪ Some limitation of daily activities. ▪ Medication: Aspirin, Paracetamol or NSAIDs to control pain with no/few side effects.
Intense	▪ Pain of almost continuous nature. ▪ Pain when walking short distances on level surfaces or standing less than half an hour. ▪ Activities of daily living (ADL) significantly limited – see note below*. ▪ Continuous use of NSAID for treatment to take effect. ▪ Requires the sporadic use of support systems (walking stick, crutches).
Severe	▪ Continuous pain. ▪ Pain when resting. ▪ Activities of daily living significantly limited constantly -see note below*. ▪ Continuous use of analgesics-narcotics/NSAIDs with adverse effects or no response. ▪ Requires more constant use of support systems (walking stick, crutches).
Functional limitations	**Definition**
Minor	▪ Functional capacity adequate to conduct normal activities and self-care. ▪ Walking capacity of about one hour. ▪ No aids needed.
Moderate	▪ Functional capacity adequate to perform only a few or none of the normal activities and self-care. ▪ Walking capacity of about one half hour. ▪ Aids such as a cane/walking stick are needed.
Severe	▪ Largely or wholly incapacitated. ▪ Walking capacity of less than half an hour or unable to walk or bedridden. ▪ Aids such as a cane, a walker or wheelchair are required.

***Note: ADL** includes activities such as meal preparation, laundry, housekeeping, shopping, using the phone, driving or using public transport.

Rationale and Evidence

Purpose of knee replacement and patient selection

Knee replacement is most commonly performed for knee joint failure caused by osteoarthritis (OA); other indications include rheumatoid arthritis (RA), juvenile rheumatoid arthritis, osteonecrosis and other types of inflammatory arthritis. The aims of knee replacement surgery are relief of pain and improvement in function. Knee replacement surgery can be very successful for selected patients with over 90% of total knee replacements (TKR) still in place and functioning well at 10 to 15 years after surgery. The National Institute of Health and Care Excellence (NICE) recently reviewed the evidence to support performing partial (PKR) or TKR in people with isolated medial compartmental osteoarthritis (see reference 1), demonstrating evidence of cost saving with PKR. However further evidence with longer follow up is required to be certain of the impact on rates of revision.

Optimum selection of patients is uncertain and conservative management including supervised/group exercise and physical therapy is effective for the majority affected by osteoarthritis.

Patella resurfacing

A recent NICE review of evidence to support patella resurfacing compared resurfacing to no resurfacing to selective resurfacing. There was insufficient evidence to show benefit of one approach over another.

Lifestyle modification

NICE guidance recommends interventions to achieve weight loss as part of the "core treatment" of osteoarthritis. Some evidence suggests that pre-surgical obesity is associated with worse clinical outcomes of knee arthroplasty. For some, complications risk may increase with higher levels of BMI.

Estimated Number of People Affected

The prevalence of symptomatic knee osteoarthritis has been estimated at 6.1% of people aged over 30 years and 7.5% of people aged over 55. It has been estimated, based on radiographic evidence, that between 14% and 34% of people over the age of 55 have osteoarthritis of the knee. Knee osteoarthritis is strongly associated with obesity and gender (chiefly affecting women) and is related to types of work that involve frequent squatting.

Glossary

Arthritis:	Is an inflammation of one or more joints in the body, though the term is used to describe all problems associated with the joints.
BMI:	Body Mass Index. Obesity is defined as a BMI greater than 30 kg/m$^{2.}$
Osteoarthritis:	Progressive degeneration of the joint surface causing pain and stiffness.

References

1. National Institute of Health and Care Excellence. CG177 Osteoarthritis. February 2014 (updated 2020). Available from: https://www.nice.org.uk/guidance/cg177
2. British Orthopaediac Association. Commissioning guide: Painful osteoarthritis of the knee. 2014. Available from: https://www.boa.ac.uk/.
3. National institute for Health and Care Excellence. Joint replacement (primary): hip, knee and shoulder NICE guideline. 2020. Available from: www.nice.org.uk/guidance/ng157
4. National Institute for Health and Care Excellence. Tobacco: preventing uptake, promoting quitting and treating dependence. NG209. 2021. Available from: https://www.nice.org.uk/guidance/ng209
5. Pozzobon D, Ferreira P H, Blyth F M, Machado G C, Ferreira M L. Can obesity and physical activity predict outcomes of elective knee or hip surgery due to osteoarthritis? A meta-analysis of cohort studies. BMJ Open. 2018 Feb;8(2):e017689.

References continued:

6. Chaudhry H, Ponnusamy K, Somerville L, McCalden R W, Marsh J, Vasarhelyi E M. Revision Rates and Functional Outcomes Among Severely, Morbidly, and Super-Obese Patients Following Primary Total Knee Arthroplasty: A Systematic Review and Meta-Analysis. JBJS Rev. 2019 Jul;7(7):e9. doi: 10.2106/JBJS.RVW.18.00184. PMID: 31365448.
7. Black's Medical Dictionary. 42nd Edition. A & C Black. London 2010.

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