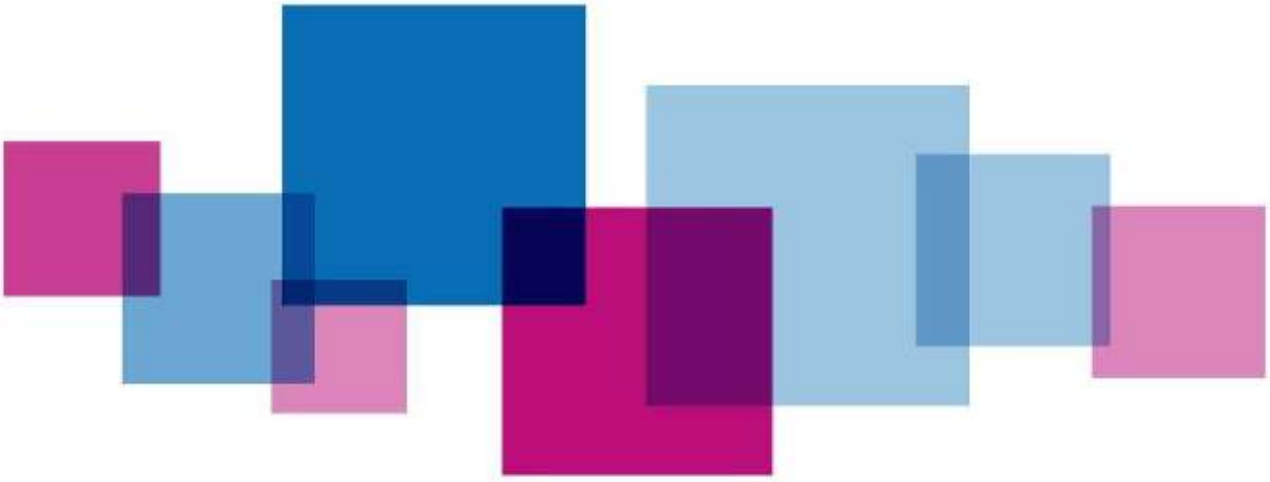
Bristol, North Somerset and South Gloucestershire
Integrated Care Board

Commissioning Policy

Knee Replacement Surgery (including Partial and Total Knee Replacement with or without Patella Replacement or Resurfacing)

Criteria Based Access



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Document Control

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Version	Date	Reviewer	Comment
1617.1	27/09/2016	IFR Manager	Policy reviewed and agreed by Board.
1617.1.01	20/10/2017	IFR Coordinator	To remove reference to MSK as "intermediate care".
1617.1.02	27/03/2018	IFR Coordinator	Rebranded to BNSSG CCG
1819.2.00	26/10/2018	Commissioning Policy Development Support Officer	Smoking and BMI references updated, BNSSG branding refreshed, PALS update. Approved on 14th February 2019 by Commissioning Executive.
1920.1.00	02/05/2019	Commissioning Policy Development Support Manager	Policy refreshed following clinical review with BNSSG Clinicians. No clinical changes made. OPCS codes added
1920.1.01	03/06/2019	Commissioning Policy Development Manager	Admin Corrections for CPRG and update of OPCS codes
1920.1.02	20/06/2019	Commissioning Policy Development Manager	Admin Corrections post CPRG and update of OPCS codes
2021.01.00	09/12/2020	Commissioning Policy Development Support Officer	MSK services website links updated.

THIS IS A CRITERIA BASED ACCESS POLICY
TREATMENT MAY BE PROVIDED WHERE PATIENTS MEET THE CRITERIA BELOW

THIS POLICY RELATES TO ALL PATIENTS

Knee Replacement Surgery Policy (including Partial and Total Knee Replacement with or without Patella Replacement or Resurfacing)

General Principles

Treatment should only be given in line with these general principles. Where patients are unable to meet these principles in addition to the specific treatment criteria set out in this policy, funding approval may be sought from the ICB Exceptional Funding Request Panel.

1. Clinicians should assess the patients against the criteria within this policy prior to referring patients seeking treatment. Referring patients to secondary care that do not meet these criteria not only incurs significant costs in out-patient appointments for patients that may not qualify for surgery, but inappropriately raises the patient's expectation of treatment.
2. Patients will only meet the criteria within this policy where there is evidence that the treatment requested is effective and the patient has the potential to benefit from the proposed treatment. Where the patient has previously been provided with the treatment with limited or diminishing benefit, it is unlikely that they will qualify for further treatment and the EFR team should be approached for advice.
3. On limited occasions, the ICB may approve funding for a further assessment in secondary care only in order to confirm or obtain evidence demonstrating whether a patient meets the criteria for funding. In such cases, patients should be made aware that the assessment does not mean that they will be provided with surgery and surgery will only be provided where it can be demonstrated that the patients meets the criteria to access treatment in this policy.
4. Where funding approval is given by the Exceptional Funding Request Panel, it will be available for a specified period of time, normally one year.
5. Patients with an elevated BMI of 30 or more may experience more post-surgical complications including post-surgical wound infection so should be encouraged to lose weight further prior to seeking surgery. https://www.sciencedirect.com/science/article/pii/S1198743X15007193 (Thelwall, 2015).
6. Patients who are smokers should be referred to smoking cessation services in order to

reduce the risk of surgery and improve healing (ASH, 2016)

7. All patients must be referred for an initial assessment, and where appropriate conservative management, to commissioned musculoskeletal services. Musculoskeletal services will assess a patient's suitability for surgery including: reference to this policy, manage patients conservatively when possible and where appropriate refer patients to secondary care for further management of their condition.

   All BNSSG Patients – http://www.sirona-cic.org.uk/nhsservices/adult-services/musculoskeletal-msk-physiotherapy/

8. For patients who do not qualify for a referral to, or do not wish to be assessed by, musculoskeletal services, individual funding approval must be secured by primary care prior to referring patients seeking advice and/or corrective surgery in secondary care. Referring patients to secondary care without funding approval having been secured not only incurs significant costs in out-patient appointments for patients that may not qualify for surgery, but inappropriately raises the patient's expectation of treatment.
9. Bristol, North Somerset and South Gloucestershire ICB supports the use of Oxford Knee Score (Isis Innovation) in the assessment of patients with osteoarthritis of the knee. Requests to approve surgery for patients with scores of 30 or more (out of a possible score of 48, where a lower score indicates worse symptoms) would not normally be expected without further clinical evidence clearly demonstrating the need for surgery earlier for the patient.
10. Patients' 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 care. NICE are now leading on Shared Decision Making.
11. In applying this policy, all clinicians and those involved in making decisions affecting patient care will pay due regard to the need to eliminate unlawful discrimination, harassment, victimisation, etc., advance equality of opportunity and foster good relations between people who share a protected characteristic and those who do not. In particular, due regard will be paid in relation to the following characteristics protected by the Equality Act 2010: age, disability, sex, gender reassignment, marriage or civil partnership, pregnancy and maternity, race, religion or belief and sexual orientation.

Background / Purpose and Scope

Reducing Inappropriate Referrals
This policy sets out when it is appropriate to manage patients conservatively in primary care and when to refer for further assessment and management.

Diagnosing Osteoarthritis

NICE recommend that a diagnosis of osteoarthritis may possibly be made if the patient has the following symptoms:

- 45 years of age or older, and
- has joint pain that gets worse the more they use their joints, and
- has no stiffness in their joints in the morning, or stiffness that lasts no longer than 30 minutes.

Appropriate imaging such as X-Rays can be used to support diagnosis.

Total or partial knee replacement can be performed for a number of conditions, but it is most often performed for patients with osteoarthritis of the knee. Osteoarthritis [OA] of the knee presents with joint pain, deformity, stiffness, a reduced range of movement and sometimes giving way.

Other conditions that cause knee damage and potentially lead to a knee replacement surgery may include:

- rheumatoid arthritis,
- haemophilia,
- gout and
- knee injury.

NICE have produced a clinical guideline CG177 on care and management of patients of OA and recommends that patients diagnosed with this condition should be “holistically” or conservatively managed (NICE , 2014). This includes:

- access to appropriate information and education including self-management techniques,
- activity and exercise,
- interventions to achieve weight loss if the person is overweight or obese,
- pain relief with oral analgesics, topical treatments and/or Nonsteroidal anti-inflammatory drugs (NSAIDS) and highly selective COX-2 inhibitors.

NICE also report that Intra-articular corticosteroid injections should be considered as an adjunct to core treatments. Intra-articular Hyaluronan injections are not commissioned for the treatment of knee pain or OA.

The usual indications for a knee replacement are pain and disability with accompanying radiological changes. Occasionally knee replacements are done to manage a progressive deformity/instability.

Any co-morbidity, including obesity should be managed to their optimum level prior to referral. Although obesity has been shown to increase the need for knee replacement surgery by 100%, particularly younger patients, weight reduction strategies could potentially reduce the

need for knee replacement surgery by 31% among patients with knee OA (Leyland, April 2016).

What does surgery or treatment involve?

The main types of surgery carried out, depending on the condition of the knee, are:

- **total knee replacement (TKR)** – both sides of the knee joint are replaced and the back of the knee cap may also be replaced
- **partial (half) knee replacement (PKR)** – only one side of the joint is replaced
- **TKR with replacement or resurfaced patella –** where there is evidence of tricompartmental OA with involvement in the patellofemoral compartment (formed by the kneecap and femur) then surgeons may seek to undertake a patellar replacement or resurfacing in conjunction with the TKR or PKR.

Classification of Pain Level and Functional Impairment

This guide below is produced to support all clinicians and patients in classifying the pain and/or impairment suffered due to their condition in order to judge whether it is the appropriate time to refer a patient to secondary care.

Pain Levels:

Slight

- Sporadic pain.
- Pain when climbing/descending stairs.
- Allows daily activities to be carried out (those requiring great physical activity may be limited).
- Medication, aspirin, paracetamol or NSAIDs 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 with no/few side effects.

Intense

- Pain of almost continuous nature.
- Pain when walking short distances on level surfaces or standing for less than half an hour.
- Daily activities significantly limited.
- Continuous use of NSAIDs for treatment to take effect.
- Requires the sporadic use of support systems walking stick, crutches).

Severe

- Continuous pain.
- Pain when resting.
- Daily activities significantly limited constantly.
- Continuous use of analgesics - narcotics/NSAIDs with adverse effects or no response.
- Requires more constant use of support systems (walking stick, crutches).

Functional Impairment

Minor

- Functional capacity adequate to conduct normal activities and self-care
- Walking capacity of more than 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 between thirty minutes to an hour
- Aids such as a cane are needed

Severe

- Largely or wholly incapacitated
- Walking capacity of less than half hour or unable to walk or bedridden
- Aids such as a cane, a walker or a wheelchair are required

Clinician's Guide: When and Where to Refer?

Pain / Functional Impairment	Minor	Moderate	Severe
Slight	Manage Conservatively in Primary Care – do not refer without funding approval	Manage Conservatively in Primary Care – do not refer without funding approval	Consider a referral to MSK for further conservative management and advice MSK to manage conservatively
Moderate	Manage Conservatively in Primary Care – do not refer without funding approval	Manage Conservatively in Primary Care – do not refer without funding approval	Consider a referral to MSK for further conservative management and advice MSK to manage conservatively

Intense	Consider a referral to MSK for further conservative management and advice MSK to manage conservatively	MSK Review and where appropriate referral to Secondary Care	MSK Review and where appropriate referral to Secondary Care
Severe	Consider a referral to MSK for further conservative management and advice MSK to manage conservatively	MSK Review and where appropriate referral to Secondary Care	Consider referral immediately if risk of losing mobility

Risks (NHS Choices, 2015)

Knee replacement surgery will normally be carried out under a general anaesthetic. Anaesthetics are extremely safe, but carry a risk of minor side effects such as sickness and confusion (usually temporary). There is also a slight risk of serious complications. The risk of death in a healthy person having routine surgery is very small. Death occurs in around one in every 100,000 general anaesthetics given. The risk is higher if you are older or have other health conditions, such as heart or lung disease.

As with any operation, knee replacement surgery has risks and complications as well as benefits.
Complications occur in about one in 20 cases, but most are minor and can be successfully treated. Possible complications include:

- **Infection of the wound** – this will usually be treated with antibiotics, but occasionally the wound can become deeply infected and require further surgery. In rare cases it may require replacement of the artificial knee joint
- **Unexpected bleeding into the knee joint, ligament, artery or nerve damage in the area around the knee joint, blood clots or deep vein thrombosis (DVT)** – clots may form in the leg veins as a result of reduced movement in the leg during the first few weeks after surgery. They can be prevented by using special support stockings, starting to walk or exercise soon after surgery, and by using anticoagulant medicines
- **Fracture in the bone around the artificial joint during or after surgery** – treatment will depend on the location and extent of the fracture
- **Excess bone forming around the artificial knee joint and restricting movement of the knee** – further surgery may be able to remove this and restore movement
- **Excess scar tissue forming and restricting movement of the knee** – further surgery

may be able to remove this and restore movement

- **The kneecap becoming dislocated** – surgery can usually repair this
- **Numbness in the area around the wound scar**
- **Allergic reaction** – you may have an allergic reaction to the bone cement if this is used in your procedure

In some cases, the new knee joint may not be completely stable and further surgery may be needed to correct it.

How long will a replacement knee last?

Wear and tear through everyday use means a replacement knee will not last forever. However, for most people it will last at least 15-20 years, especially if cared for properly and not put under too much strain.

POLICY CRITERIA – COMMISSIONED

CRITERIA BASED ACCESS

Funding approval for surgical treatment will only be provided by the ICB for patients meeting criteria set out below.

1) The patient has been assessed (including paper based triage where appropriate) by Musculoskeletal Services and diagnosed as suffering from end-stage osteoarthritis suitable for referral for consideration of surgery,

AND

2) The patient has fully engaged with conservative measures for a period of at least six months (clearly detailed throughout the patient's primary care record or via Musculoskeletal Services' clinic letters), as detailed within this policy, and this has failed to improve the symptoms of the patient,

AND

3) The patient:

   a) Is suffering from intense or severe persistent pain with moderate or severe functional impairment when compared to the classification system on the previous page.

OR

   b) Has significant instability of the knee joint affecting the patient on a daily basis,

OR

   c) Has radiological features of severe disease with moderate functional impairments;

OR

   d) Has radiological features of moderate disease or instability of the knee joint affecting the patient on a daily basis

OR

4) The patient has severe persistent pain that is causing severe functional impairment* which is compromising their mobility to such an extent that they are in immediate danger of losing their independence and joint replacement would relieve this, and conservative management as set out in this policy is contra-indicated.

OR

5) The patient is at risk of destruction of their joint of such severity that delaying surgical correction would increase the technical difficulties of the procedure.

Commissioned Prosthesis

The ICB will only fund standard prostheses conforming with NICE guidelines and that are Orthopaedic Data Evaluation Panel [ODEP] 10A rated, on a trajectory to achieve this rating, or within an ODEP-approved multicentre research trial. (Orthopaedic Data Evaluation Panel).

Kneecap resurfacing or replacement

Where patients have evidence of tri-compartmental OA affecting the kneecap, resurfacing or replacement of the patella can be proposed. However, the long-term results are still unclear with a recent meta-analysis showing the difference of absolute risk of reoperation between resurfacing and non-resurfacing being only 4% implying that in order to prevent one reoperation one would have to resurface 25 patellae. (Fu Y, 2011).

Kneecap resurfacing or replacement – Commissioned procedure (Monitor and NHS England, 2016)**.** Tri- compartmental knee surgery under the HRG code **"HB21C Major Knee Procedures for Non-Trauma, Category 2, without CC"** is the routinely commissioned surgery for patients requiring patellar resurfacing or replacement and funding approval for this procedure is not normally needed where patients meet the criteria within this policy.

Tri- compartmental knee surgery under the HRG code **"HR05Z Reconstruction Procedures Category 2"** is not routinely funded and clinicians should apply for individual funding approval setting out why the patient is unable to access the commissioned treatment and how they will benefit over and above all other patients for whom this treatment is also not available.

Exclusions:

Patient-specific Custom Knee Prosthesis

This is a more recent advance in knee replacement surgery. A guide is created using magnetic resonance imaging (MRI) scans. This helps to create the best fitting technique for each individual patient's implant. However, there is limited evidence that these benefit patients more than standard prostheses therefore custom knee prosthesis are not routinely funded.

Hyaluronan Acid Injections

Intra-articular Hyaluronan injections are not commissioned for the treatment of knee pain or OA.

For more guidance please see https://remedy.bnssgccg.nhs.uk/

National Joint Registry

In line with NICE guideline IPG 345, (NICE) where patients consent, Surgeons should submit details on all patients undergoing mini-incision surgery for total knee replacement to the National Joint Registry (National Joint Registry).

Patients who are not eligible for treatment under this policy may be considered on an individual basis where their GP or consultant believes exceptional circumstances exist that warrant deviation from the rule of this policy.

Individual cases will be reviewed at the ICB's Exceptional Funding Panel upon receipt of a completed application form from the patient's GP, Consultant or Clinician. Applications cannot be considered from patients personally.

Due Regard

In carrying out their functions, the Bristol North Somerset and South Gloucestershire Commissioning Policy Review Group (CPRG) are committed to having due regard to the Public Sector Equality Duty (PSED). This applies to all the activities for which the ICB is responsible, including policy development and review.

Local clinicians have confirmed that this criteria supports the recommendations made in regard to the current clinical evidence available.

If you would like further copies of this policy or need it in another format, such as Braille or another language, please contact the Customer Services Team on: **0117 900 2655** or **0800 073 0907** or email them on **BNSSG.customerservice@nhs.net .**

Connected Policies

Knee Arthroscopy: Clinician's should refer to the intervention specific policy.

This policy has been developed with the aid of the following references:

Ash. (2016). *Ash.org.uk.* Retrieved Sept 24, 2018, from www.ash.org.uk: www.ash.org.uk/briefings

Fu Y, W. G. (2011). Patellar resurfacing in total knee arthroplasty for osteoarthritis: a meta-analysis. *European Society of Sports Traumatology, Knee Surgery & Arthroscopy*.

Isis Innovation. (n.d.). *Oxford Knee Score - Threshold for knee replacement*. Retrieved 05 19, 2016, from www.orthopaedicscores.com: http://www.orthopaedicscore.com/scorepages/oxford_knee_score.html

Leyland, K. M.-P.-A. (April 2016). Obesity and the Relative Risk of Knee Replacement Surgery in

Patients With Knee Osteoarthritis: A Prospective Cohort Study. *Arthritis & rheumatology (Hoboken, N.J.),* , vol. 68, no. 4, p. 817-825.

Monitor and NHS England. (2016, May 13). *NHS National Tariff Payment System 2016/17.* Retrieved from Gov.Uk: https://www.gov.uk/government/publications/nhs-national-tariff-payment-system-201617

National Joint Registry. (n.d.). *Joint Replacements.* Retrieved 05 18, 2016, from NJR Centre: http://www.njrcentre.org.uk/njrcentre/Patients/Jointreplacements/tabid/93/Default.aspx

NHS Choices. (2015, July 14). *NHS Choices*. Retrieved from Knee Replacement: http://www.nhs.uk/Conditions/Knee-replacement/Pages/Kneereplacementexplained.aspx

NICE . (2014, February). *Osteoarthritis: care and management CG117*. Retrieved from NICE: https://www.nice.org.uk/guidance/cg177

NICE. (n.d.). *Mini-incision surgery for total knee replacement.* Retrieved May 18, 2016, from NICE: https://www.nice.org.uk/guidance/ipg345

Orthopaedic Data Evaluation Panel . (n.d.). *http://www.odep.org.uk/products.aspx?typeid=3*. Retrieved May 18, 2016, from Orthopaedic Data Evaluation Panel : http://www.odep.org.uk/Home.aspx

Thelwall, S. (2015). Impact of obesity on the risk of wound infection following surgery: results from a nationwide prospective multicentre cohort study in England. *Clinical microbiology and infection : the official publication of the European Society of Clinical Microbiology and Infectious Diseases*, vol. 21, no. 11, p. 1008.e1.

OPCS Procedure codes

Procedures challenged in this policy:
OPCS Code:
W401,W402,W403,W404,W408,W409,W400,W411,W412,W413,W414,W418,W419,W410,W421,W422,W423,W424,W425,W426,W428,W429,W420
Relevant diagnoses for this policy:
ICD10 Code