NHS
Vale of York
Clinical Commissioning Group

29. Knee Arthroscopy Commissioning Statement

Treatment	Knee arthroscopy for diagnostic or therapeutic reasons
Background	Knee arthroscopy is a surgical procedure for inspection and treatment of problems arising in the knee joint such as inflammation or an injury. It can include repair or removal of any damaged tissue or cartilage. It has been used extensively in the past to diagnose knee problems but this is no longer appropriate due to the invasive nature of the procedure and the increasing access to less invasive diagnostic methods such as MRI. Recent analysis of the RightCare Commissioning for Value Focus Pack for Vale of York CCG shows that the CCG appears to have a much higher rate of elective knee arthroscopy than demographically similar CCGs. One of the main measures of knee arthroscopy* is the third commonest procedure carried out on the CCG population under elective MSK, after knee and hip joint replacement. The CCG is identified as an outlier, with over 60% more procedures than age and sex matched populations in similar CCGs, involving around £5M expenditure. The reasons for this are being explored (see RightCare data) With such a common procedure, it is all the more important to ensure that the evidence base is robust so that patients are not exposed to the risks without good evidence of benefit. It is important for the NHS to optimise the safety and cost-effectiveness of procedures to ensure maximum benefit for the risks and costs involved. The figures suggest that this could represent an area of improvement in cost-effectiveness and possible cost saving. The most recent Royal College of Surgeons commissioning guide states that knee arthroscopy, lavage and debridement should NOT be offered to patients with non-mechanical symptoms of pain and stiffness[1]. This approach is supported by many CCGs in England, including ones local to Vale of York, which do not support the routine funding of diagnostic knee arthroscopy. * (W822 Endoscopic resection of semilunar cartilage - not elsewhere classified)
Commissioning position	NHS Vale of York CCG does NOT routinely commission referral to secondary care for knee arthroscopy. **NB: NHS Vale of York CCG also does NOT routinely commission an elective intervention on patients who have a BMI of 30 or above (classified as obese) or patients who are recorded as a current smoker – see commissioning statement Optimising Outcomes from All Elective Surgery)** In particular, both diagnostic and therapeutic arthroscopy are **NOT** routinely commissioned: • for diagnostic purposes for investigation of knee pain • to provide washout treatment (lavage) or debridement as a treatment for knee pain or arthritis (in line with NICE guidance, this should not be offered as part of a treatment for osteoarthritis unless the person has a clear documented history of **mechanical locking**)[2, 3]

	• for symptoms of "giving way' or X-ray evidence of loose bodies without true locking NB If clinical assessment suggests the patient might have a **red flag** condition (e.g.trauma, infection, carcinoma, bony fracture, avascular necrosis, or constant progressive non-mechanical pain, particularly at night), refer without delay **OR** if there has been knee trauma causing fracture or ligament avulsion and arthroscopy is needed urgently. The CCG will ONLY commission therapeutic knee arthroscopy in adults where: • the patient has clear mechanical features of true locking, or symptoms that worsen with conservative treatment, **AND** • conservative treatment has been tried over a **3 month** period (This needs to include exercise, weight loss where appropriate, physiotherapy and maximal analgesic medication) **OR** • for patients with **chronic knee pain**, up to **6 months of comprehensive conservative treatment** should be tried, including ○ **efforts to lose weight if BMI over 25**, (as outlined in NICE guidance[3]), ○ **lifestyle advice, including exercise or rest** ○ **optimum pharmacological treatments** ○ **self or physiotherapy guided mobilisation and strengthening exercises.** NB: Referral for MRI scans should only be made by secondary care consultants or specialists working in CCG commissioned MSK services. Investigation of knee pain with locking within the MSK service (tier 2) should start with less invasive MRI scanning to identify meniscal tears and loose bodies, in line with RSS guidance Radiology for knee pain with locking. The only exception is when there are contraindications to MRI (eg a pacemaker) or diagnostic uncertainty following a MRI scan **OR** if the patient has an anterior cruciate ligament reconstruction with metal screws affecting the MRI image quality. **Treatment in all other circumstances is not normally funded and should not be referred unless there is prior approval by the Individual Funding Request Panel.** Patients who are not eligible for treatment under this policy may be considered on an individual basis where their GP or consultant believes there is an exceptional clinical need that justifies deviation from the rule of this policy. Individual cases will be considered by the individual funding request panel (*IFR request*) **Providers will not be reimbursed for procedures on patients that do not have IFR approval.**
Summary of evidence / rationale	For patients with non-traumatic knee injury, evidence shows that, on average, conservative treatment is as effective as arthroscopic knee surgery for some

procedures. As long ago as 2002, a controlled trial addressing knee arthroscopy, using placebo or "sham" surgery as a comparator, showed no benefit[4].

Partial meniscectomy surgery showed no advantage over sham in one RCT of patients aged 35-65 years with degenerative meniscal tears without osteoarthritis[5] and no advantage over physical therapy in two RCTs of older patients (>45 years) with osteoarthritis[6, 7]. In a systematic review of RCTs of young patients (mean age ~20 years) with a first occurrence of patellar dislocation, there was no conclusive advantage of surgical treatments compared with non-surgical treatments[8]. In an RCT of patients with patellarfemoral pain syndrome (18-40 years), mixed arthroscopic procedures and exercise resulted in equivalent improvements compared with exercise alone[9].

Although rates of post-operative complications are generally low higher rates have been observed in children and young people[10,11]. There may also be future knee damage associated with arthroscopic procedures[12, 13] and a recent meta-analysis showed that the small benefit from arthroscopic knee surgery seen in middle aged or older patients with knee pain and degenerative knee disease was absent one to two years after surgery and was associated with an increase in significant harms such as deep vein thrombosis, pulmonary embolism, infection and death[14]. The paper concludes

"The small inconsequential benefit seen from interventions that include arthroscopy for the degenerative knee is limited in time and absent at one to two years after surgery. Knee arthroscopy is associated with harms. Taken together, these findings do not support the practice of arthroscopic surgery for middle aged or older patients with knee pain with or without signs of osteoarthritis[14].
The Royal College of Surgeons/British Orthopaedic Association commissioning guide points out that "osteoarthritis may not be progressive and most patients will not need surgery, with their symptoms adequately controlled by non-surgical measures as outlined by NICE[1]."

Regarding knee arthroscopy, it states that lavage and debridement should be considered in patients:

- With clear history of mechanical symptoms e.g. locking that have not responded to at least 3 months of non-surgical treatment
- Where a detailed understanding of the degree of compartment damage within the knee is required, above that demonstrated by imaging, when considering patients for certain surgical interventions (e.g. high tibial osteotomy)

The RCS/BOA guidance also states (in line with NICE guidance) that "**Knee arthroscopy, lavage and debridement should NOT be offered for patient with non-mechanical symptoms of pain and stiffness."**

More recently, the BMJ has published two editorials about arthroscopic surgery for degenerative knee or knee pain[16, 17]. They both explore the evidence for benefit and harm and point out that, although this is one of the most common surgical procedures, there is no convincing evidence for the procedure being

beneficial beyond the placebo effect.

A series of rigorous trials summarised in two recent systematic reviews and meta-analyses provide clear evidence that arthroscopic knee surgery offers little benefit for most patients with knee pain[14, 18].

The most recent linked paper is a comparison between exercise therapy alone and arthroscopic partial meniscectomy alone (without any postoperative rehabilitation) in adults with a degenerative meniscal tear[19]. The authors found no between group differences in patient reported knee function at the two year follow-up, but greater muscle strength in the exercise group at three months.

Over time, the indications have extended from locked knees in young patients to all patients of all ages with knee pain and meniscus tears of any sort; tears which, on magnetic resonance imaging, have proved poorly associated with symptoms[20].

Essentially, the editorials say, good evidence has been widely ignored. The most recent editorial comments that arthroscopic surgery for knee pain continues unabated, as disinvestments in ineffective treatments are generally slow[17, 21]. It calls for local commissioners to respond appropriately to the evidence, because "system level measures that result in more appropriate use of scarce medical resources are urgently required".

In addition, it says that "in a world of increasing awareness of constrained resources and epidemic medical waste, what we should not do is (…) ignore the results of rigorous trials and allow continuing widespread use of procedures for which there has never been compelling evidence".

Rationale for up to 12 months of conservative treatment in chronic knee pain

This policy therefore specifies that conservative treatment should primarily be used but, when this fails, referral for surgery is an option. In the trial of meniscal surgery compared with conservative treatment in patients without osteoarthritis, at earlier time points, outcomes favoured surgery, but by 12 months of conservative treatment, outcomes were equivalent[5]. Therefore, to allow sufficient time for benefits of conservative treatment to be gained, and to allow for any potential natural healing of joint derangements, a minimum 12 months restriction has been selected for which conservative treatment should be attempted before any referral.

In this trial, cross-over from the conservative group to surgery over 12 months was low (7%). However, in other trials cross-over has been higher (around 30%)[5,6] suggesting that some patients will require more urgent surgery. There may be some cases where symptoms re-occur on conservative management and these patients may benefit from surgery[15]. Therefore, this policy allows for patients with mechanical locking or worsening symptoms to be referred before the 12 month period of conservative management.

Restricted procedures

For some interventions, the evidence identifies a lack of effect or there is insufficient evidence to warrant their use. There is currently no NICE guidance on the use of many procedures but, for the procedures that have been assessed, those not recommended by NICE will not be funded without IFR

	approval. There is evidence (including from a Cochrane systematic review) that lavage does not improve patient outcome compared to sham[2, 3, 24-26] and NICE does not recommend lavage[2]. NICE recommends knee meniscus replacement with biodegradable scaffold only with special arrangements for clinical governance, consent and audit or research[27]. NICE currently recommends that mosaicplasty should not be used without special arrangements for consent and audit or research[28.] NICE does not currently recommend autologous chondrocyte implantation for the treatment of articular cartilage defects of the knee joint except in the context of on-going or new clinical studies[29]. NICE recommends that arthroscopic trochleoplasty for patellar instability should only be used with special arrangements for clinical governance, consent and audit or research[30]. There is some evidence that debridement is ineffective[3, 24, 25], but NICE recommends that debridement may be appropriate in cases where there is mechanical locking[3]. **Restricted use of MRI** MRI is a good diagnostic tool[22], but may be inaccurate when used by less experienced staff[23] and its use is, therefore, restricted to secondary care or specialists working in CCG commissioned MSK services for this indication. *Adapted (and updated) from evidence review in Knee arthroscopy for chronic knee pain Cambridgeshire and Peterborough CCG31, with thanks to Dr Raj Lakshman, Consultant Lead in Healthcare* **Shared decision-making** A letter following the recent BMJ editorial suggests that the overtreatment of knee pain with arthroscopy could be solved through the use of shared decision making[32]. The NHS/BMJ aid for knee arthritis clearly states that arthroscopy for lavage and/or debridement doesn't make much difference to pain, increase mobility around or stop symptom progression[33]. The British Orthopaedic Association recently claimed that GPs were over-diagnosing patients with non-arthritic complaints and referring them on for surgery (instead of prescribing exercise) with the expectation that the keyhole procedure would 'cure' the problem, so that too many patients were undergoing needless arthroscopy. Easy access to MRI is also likely to be leading to overdiagnosis of meniscal tears and subsequent overtreatment. "Shared decision making for the management of knee pain should begin in the GP surgery and continue through the patient's treatment. Given the research findings, it would be difficult to see why patients who are adequately supported in the decision making process would be choosing surgery over physiotherapy." Deciding what to do about osteoarthritis of the knee; SDM guide - OA knee Patient information leaflets available Arthroscopy Knee cartilage injuries
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