West Yorkshire and Harrogate
Health and Care Partnership

West Yorkshire & Harrogate
Joint Committee of Clinical Commissioning Groups

Summary report				
Date of meeting: **5 November 2019**		Agenda item: 59/19		
Report title:	**Knee Policies**			
Joint Committee sponsor:	Matt Walsh			
Clinical Lead:	James Thomas			
Author:	Catherine Thompson			
Presenter:	James Thomas			
Purpose of report: (why is this being brought to the Committee?)				
Decision	✓	Comment	✓	
Assurance	✓			

Executive summary

The West Yorkshire and Harrogate (WY&H) Elective Care and Standardisation of Commissioning policies programme addresses clinical thresholds and criteria for clinical procedures. The purpose of the Clinical Thresholds workstream is to review and standardise the clinical thresholds for these procedures across the nine Clinical Commissioning Groups of WY&H. We present here proposed policies for knee procedures.

Recommendations and next steps

The Joint Committee is asked to agree the WY&H knee policies on behalf of the nine Clinical Commissioning Groups of West Yorkshire and Harrogate.

Delivering outcomes: describe how the report supports the delivery of STP outcomes (Health and wellbeing, care and quality, finance and efficiency)

Health and Wellbeing: The programme adopts a 'right care, right place, right time' approach to the planning and delivery of planned care services.

Care and Quality: The clinical thresholds and criteria are for procedures which provide benefit to only a limited number of people, or which should only be offered after other treatment options have been tried. Introducing this policy will ensure that only the people who will benefit from these procedures are offered them. Adoption across West Yorkshire and Harrogate will reduce the variation in treatment offered to people across our region.

Finance and Efficiency: The financial impact of the knee policies will vary between places but we do not anticipate any significant change in costs across the WY&H HCP.

Impact assessment (please provide a brief description, or refer to the main body of the report)	
Clinical outcomes:	4,5,7,10 - 14
Public involvement:	15 - 18

Finance:	25 - 26
Risk:	16, 20, 24, 26.
Conflicts of interest:	Dr James Thomas: GP Chair of NHS Airedale, Wharfedale and Craven CCG; partner of Modality GP partnership; Dr Kate Thomas (spouse) is also a partner of Modality GP partnership. Dr Matt Walsh: Chief Officer of NHS Calderdale CCG Catherine Thompson: none declared

West Yorkshire and Harrogate Health and Care Partnership Elective Care and Standardisation of Commissioning Policies Programme

Introduction

1. The West Yorkshire and Harrogate Elective Care and Standardisation of Commissioning policies programme addresses clinical thresholds and criteria for clinical procedures, including standardisation of clinical pathways. The purpose of the clinical thresholds workstream is to review and standardise the clinical thresholds for these policies across the nine Clinical Commissioning Groups of West Yorkshire and Harrogate (WY&H). This will reduce variation in access to care across WY&H and ensure that care is evidence based.

2. The Elective Care and Standardisation of Commissioning Policies (SCP) programme of the West Yorkshire and Harrogate Health and Care Partnership (WY&H HCP) has considered the knee procedure policies across WY&H and developed a single set of policies from these. The WY&H Elective Care and SCP Programme Board recommends the adoption of these policies across all CCGs within WY&H.

West Yorkshire and Harrogate Policy Development Process

3. The Elective Care and SCP programme has developed a governance process to support decision making through the Joint Committee of WY&H CCGs as set out in the scheme of delegation appended to the WY&H Memorandum of Understanding. This has been discussed during presentations of the Elective Care and SCP programme at the WY&H Clinical Forum and Joint Committee meetings and agreed as an acceptable approach. The process is detailed here for clarity. See also the governance diagram at Appendix 1, which provides additional detail e.g. specific working groups.

    - Each policy or pathway is developed in the relevant working group using the ‘do once and share’ approach i.e. one place / CCG leads the development of the policy or pathway.
    - Clinical involvement is secured by the place leading the pathway / policy development, and the draft policy / pathway shared for comment and development with relevant clinicians across WY&H. Amendments are made in response to clinical feedback to reach a consensus position.
    - The developed policy or pathway is shared with members of the working group to ensure agreement of all working group members.
    - Mapping of the differences between the proposed pathway and the current pathway and policies in each of the nine WY&H CCGs and an assessment of issues and risks
    - Mapping of engagement findings from across the nine WY&H CCGs and assessment of the need for consultation or further engagement
    - Completion of the WY&H Quality and Equalities Impact Assessment (agreed at the January 2019 Joint Committee)
    - The policy or pathway is presented at the Elective Care and SCP programme board to ensure representation and agreement from all nine CCGs within WY&H prior to recommendation to the Joint Committee.
    - Development and discussion at Joint Committee and/ or Clinical Forum
    - Decision at Joint Committee

Knee Arthroplasty (replacement)

4. Knee replacement surgery (arthroplasty) is a routine operation that involves replacing a damaged, worn or diseased knee with an artificial joint. Adults of any age can be considered for a knee replacement, although most are carried out on people between the ages of 60 and 80. More people are now receiving this operation at a younger age.

5. Knee replacement surgery is usually necessary when the knee joint is worn or damaged to the extent that mobility is reduced and the person experiences pain even while resting. The most common reason for knee replacement surgery is osteoarthritis. Other conditions can result in the need for knee replacement but these are far less common and are not covered by this policy.

6. Shared decision making between the clinician and the patient is important when an individual is considering knee replacement, to understand the risks and benefits of the procedure and the post-procedure rehabilitation requirements and timeframe.

Knee Arthroscopy (key-hole surgery)

7. 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 Magnetic Resonance Imaging (MRI). More recently evidence has shown that arthroscopic knee interventions are unlikely to be successful where there is moderate to severe osteoarthritis present in the knee joint. The intervention is used across the age ranges.

8. Shared decision making between the clinician and the patient is important when an individual is considering knee arthroscopy, to understand the risks and benefits of the procedure and the post-procedure rehabilitation requirements and timeframe.

West Yorkshire and Harrogate Policies for Consideration

9. A WY&H policy for knee arthroplasty and a policy for knee arthroscopy have been developed. The proposed policies are included in Appendix 2.

10. Knee arthroplasty would be available to people who have moderate to severe joint pain and minor functional limitation (e.g. difficulties walking or with activities of daily living) due to osteoarthritis of the knee, or severe disease on x-ray (see Appendix 2 for exact criteria).

11. Knee arthroscopy would be available to people who have true ‘mechanical symptoms’ of the knee (e.g. ‘locking’, where the joint becomes ‘stuck’ and the person is temporarily unable to move the joint) and knee joint pain, but without co-existing osteoarthritis (see Appendix 2 for exact criteria).

12. Both policies require that conservative management options are tried, and have shown no benefit in the individual’s condition prior to referral for orthopaedic

assessment. Conservative treatment would usually be tried for around 3 months before considering referral for surgical assessment.

13. All patients being referred for knee surgery should have an assessment of their BMI and smoking status, as well as other 'lifestyle factors' that may influence their long term health outcomes, as part of a 'making every contact count' approach to providing health care services, and those that would benefit from a health improvement interventions should be made a meaningful offer of support.

14. A shared decision making conversation should be part of the referral process and decision to proceed with an invasive intervention. This is particularly important as some people with knee pain will not gain benefit from surgical intervention beyond that offered through conservative management.

Engagement and Consultation

15. The development of the knee policies was led by the Wakefield 'place' with involvement from the Wakefield commissioning lead for planned care and the orthopaedic surgeons at Mid Yorkshire Hospitals. A draft of the pathway was then shared with all the CCGs of WY&H, and through the West Yorkshire Association of Acute Trusts (WYAAT) with all the acute NHS provider organisations. Each CCG also shared the pathway with local clinical staff and service providers as appropriate. A system-wide engagement event was held in May 2019 to refine the policy and ensure clinical agreement with it.

16. Advice was sought from the communications and engagement leads in each of the CCGs, asking them whether the changes that were proposed were of a nature that they would want to engage on locally. All replied that the changes were very minor, and should result in an improvement in service so they would not normally undertake local engagement. Local communication to provider organisations, clinicians and the local population will be necessary to support implementation.

17. The WY&H HCP engagement mapping exercise[1] from March 2018 provided information to inform the development of the policies. The key findings were that:

    a) people felt that there should not be a postcode lottery for access to care
    b) consideration needs to be given to the effectiveness of treatments.

    Creating a single set of knee policies for WY&H will help increase standardisation of services and reduce variation in access and availability of care. Ensuring the clinical thresholds for the shoulder policies are consistently applied will mean that procedures will only be carried out when they will be clinically effective.

18. At its meeting on 14 October 2019, the Joint Committee's Patient and Public Involvement (PPI) Assurance Group considered an update on the Elective Care programme, including the approach to engagement for the Knee policies. The Group noted the reasons why local engagement had not been required and also noted that communication with the local population would be necessary to

[1] https://www.wyhpartnership.co.uk/application/files/3015/3797/5058/WYH_HCP_Engagement_mapping_-_March_2018_FINAL.pdf

support implementation. The Group supported the approach to PPI of the Programme.

Quality and Equality Impact Assessment

19. To support the governance processes for the Elective Care and SCP programme a single approach to Quality and Equality Impact Assessment (QEIA) has been developed by the WY&H CCG Chief Nurses, Quality Leads and Equality leads. This process, including a policy, document template and guidance notes were approved at the WY&H Joint Committee of CCGs in their public meeting on 8 January 2019.

20. The groups of people affected by this policy are:

    a) Older people (OA knee). All groups (knee arthroscopy).
    b) Primary care staff, in particular, General Practitioners, as they will need to take account of these policies when assessing and referring patients.
    c) Community service and secondary care clinicians who also need to take account of this pathway when treating patients and making onward referrals.

21. The QEIA for the knee policies identified numerous positive impacts for patient experience, safety, clinical effectiveness and workforce such as support to make better life choices, applying national guidelines and improved integration of services. Minor negative impacts were also identified for patient experience, equality and workforce however mitigating actions have been outlined including benefits of shared decision making and the need for communication tools and accessible information for patients. The QEIA summary is included at Appendix 3.

22. A key consideration of Elective Care and SCP programme is equitable access to appropriate, evidence-based interventions. By implementing these policies and pathways, we aim to reduce variation of inequalities in health outcomes for the population of WY&H by systematically offering the most up-to-date clinically proven treatments and making the most effective use of NHS resources.

Impact of Implementation in West Yorkshire and Harrogate

23. Implementation of the knee policies will simplify the administrative processes and clinical decision making for orthopaedic surgeons and provider organisations as the clinical thresholds will be standardised across all CCGs in WY&H.

24. The emphasis on shared decision making and supported self-management will require additional staff development to ensure all clinical staff within MSK and elective orthopaedic services have the required skills for this approach. The Elective Care and SCP and Personalisation of Care programme teams are collaborating to ensure some funded training places are available to support this.

25. Evidence from programmes such as Escape-Pain through the AHSN and from published research[2] demonstrates the benefit to be gained from conservative management. If we are to manage the growing demand for knee replacement

[2] https://www.nejm.org/doi/full/10.1056/NEJMoa1505467

surgery it will be important to invest in conservative management programmes that address to contributing factors for OA Knee and include primary and secondary prevention.

26. There may be some limited reduction in surgical procedures of the knee. We do not expect this to be significant and anticipate the overall financial impact to be neutral, however we expect that there will be some place based variation. We are not able to accurately predict what this will be.

Implementation Plans

27. The nine CCGs of WY&H have previously agreed a 12 month timescale for the implementation of new policies. This reflects the contract negotiation process with service providers.

28. Implementation of the WY&H knee policies should be monitored by regular local audit of clinical practice and patient experience.

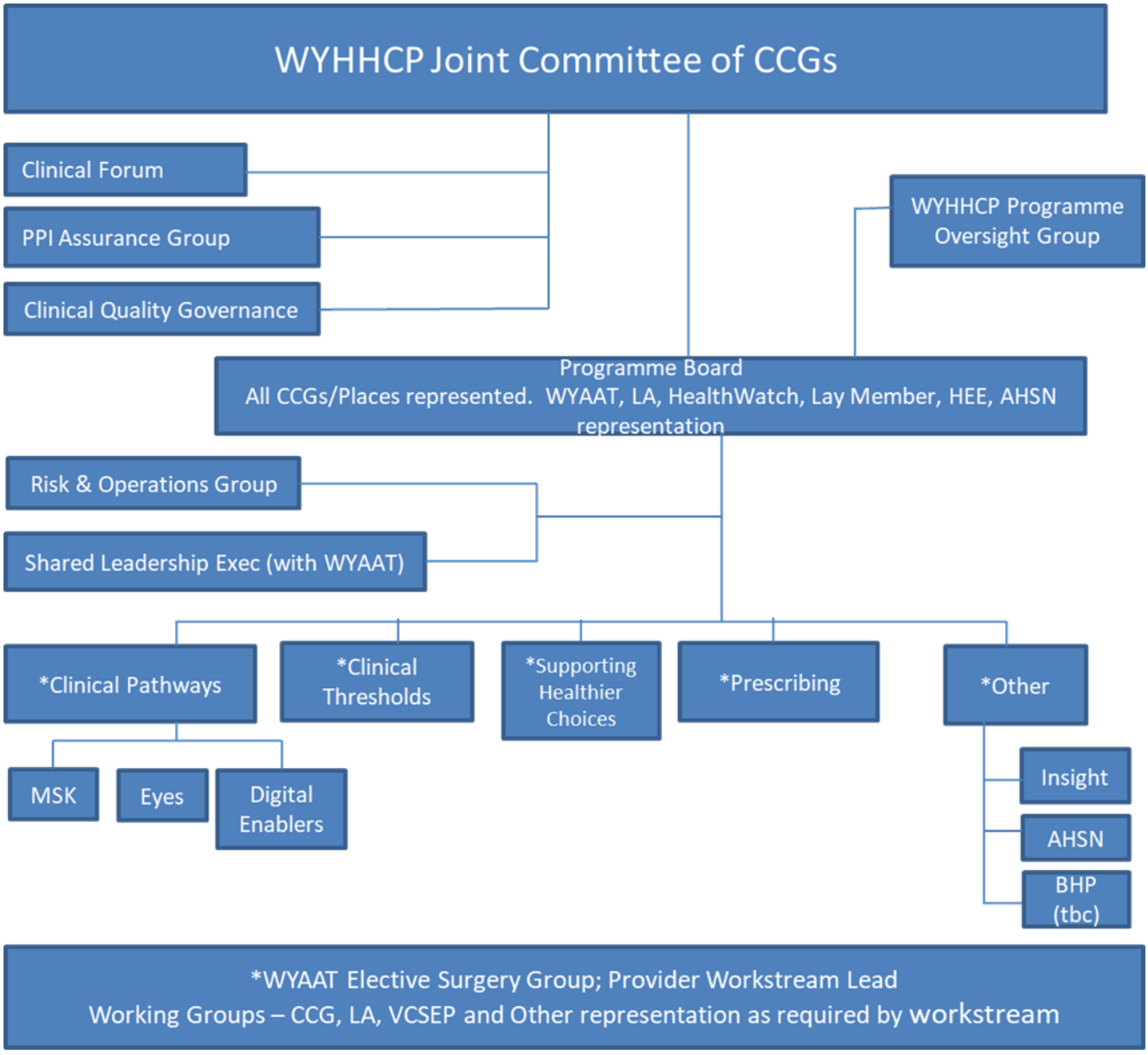
Summary and Recommendations

29. The Joint Committee is asked to agree the WY&H knee policies on behalf of the nine Clinical Commissioning Groups of West Yorkshire and Harrogate.

List of Appendices:

1. **Governance Structure**
2. **WY&H Knee Policies**
   - **2.1. Knee Arthroplasty (replacement)**
   - **2.2. Knee Arthroscopy (key hole surgery)**
3. **Quality and Equality Impact Assessment**

Appendix 1. Governance Structure



West Yorkshire and Harrogate Health and Care Partnership							
Policy	**Knee Replacement for Knee Arthritis**				**X CCG Ref**		
First Issue Date		**Current version:**			**Last reviewed:**		
Review date		**Contact**					
Clinical Reviewer		**Approved by**					
Referral?							

Summary of Policy

- **This commissioning statement refers to:**
  - Knee replacement for Knee Arthritis

Policy Exclusions

This policy does not apply to children.

Evidence suggests that the following patients would be INAPPROPRIATE candidates for knee joint replacement surgery:

- **Where the patient complains of mild joint pain AND has minor or moderate functional limitation.**
- **Where the patient complains of moderate to severe joint pain AND has minor functional limitation AND has not previously had an adequate trial of conservative management as described above.**

Patients whom are assessed by the above criteria to be inappropriate for knee replacement surgery should not be listed for surgery.

Please refer to the classification of pain levels and functional limitations in the table below:

For Knee Replacement: Classification of Mobility, Stability, Symptomatology and Localisation

Variable	Definition
Mobility and Stability	
Preserved mobility and stable joint	**Preserved mobility is equivalent to minimum range of movement from 0o to 90o. Stable or not lax is equivalent to an absence of slackness of more than 5mm in the extended joint.**
Limited mobility and/or stable joint	**Limited mobility is equivalent to a range of movement less than 0^{o} to 90^{o} unstable or lax is equivalent to the presence of slackness of more than 5mm in the extended joint.**
Symptomatology	
Mild	**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 with adverse effects or no response.** **Requires more constant use of support systems (walking stick, crutches).**

Policy Inclusion Criteria

There is evidence to show that "weight loss and exercise combined have been shown to achieve the same level of symptom relief as joint replacement surgery". A study of obese patients with osteoarthritis found that those who dropped their weight by 10% after a combination of diet and exercise reported less pain, better knee function, improved mobility and enhanced quality of life. People who are obese should be encouraged to undertake a weight management programme and/or exercise programme to support optimal post-operative outcomes

- All patients being referred for knee pain should have an assessment of their BMI and smoking status, as well as other 'lifestyle factors' that may influence their long term health outcomes, as part of a 'making every contact count' approach to providing health care services.
- All patients who would benefit from a health improvement intervention to address weight management, smoking or other factors should be made a meaningful offer of support for this at appropriate stages in their conservative management and in all instances before referral is made for surgical assessment.
- Patients with knee pain, and without red flag or acute trauma indications, should be managed in line with the WY&H MSK pathway (see xxx) and should not normally be referred for surgical opinion before all appropriate non-surgical management options have been tried and have not been effective. Referral should be when other pre-existing medical conditions have been optimised AND conservative measures have been exhausted and failed. This will include weight reduction, NSAIDs and analgesics, joint injections in line with best practice clinical guidelines, lifestyle modification such as increased physical activity, exercise, and introducing a walking aid. (Please refer to the classification of Pain Levels and Functional Limitations Table).
- Patients who have persistent or progressive symptoms, despite comprehensive non-operative management and good patient engagement and participation in therapy programmes, should have a shared decision making conversation to consider referral for surgical assessment. This should include an understanding of rehabilitation requirements and likely duration. The evidence for risks, benefits and differences in outcomes between surgical intervention and continued non-operative management should be included in this conversation, with a discussion of the patient's treatment /

outcome goals. The patient and the clinician should reach a shared decision whether to proceed with referral / surgical intervention.

- Patients who are symptomatically better or who are improving with non-surgical management should not usually be referred for surgical assessment.

Referrals should be made if any one of the following applies:

- The patient complains of intense or severe symptomatology
- Has radiological features of severe disease
- Has demonstrated disease within all three compartments of the knee (tri-compartmental) or localised to one compartment plus patello-femoral disease (bi-compartmental).
- Has radiologic features of moderate disease; and is troubled by limited mobility or stability of the knee joint
- Has radiological features of mild disease, and is troubled by limited mobility or stability of the knee joint despite the use of non-surgical treatments such as adequate doses of NSAID analgesia, weight control treatments and physical therapies
- Is assessed to be at low surgical risk.

NICE Guidance:

https://www.nice.org.uk/guidance/cg177/chapter/1-Recommendations#referral-for-consideration-of-joint-surgery-2

https://www.nice.org.uk/guidance/cg189/chapter/1-Recommendations#identification-and-classification-of-overweight-and-obesity

The Oxford Pain Score tool can be found at:

http://www.orthopaedicscore.com/scorepages/oxford_knee_score.html

Further guidance available at:
http://www.bjj.boneandjoint.org.uk/content/89-B/8/1010.full
Patients with a BMI of >40 (the super-obese) are at increased risk of surgical complications and probably should not be operated on unless there are specific indications. It will be an individual decision made by the clinician with the patient, balancing the clinical risk against the perceived benefits.

Funding Mechanism	
Not Applicable	
Funding request form	Not applicable
Summary of evidence / Rationale	20% of adults over 50 and 40% over 80 years report disability from knee pain secondary to osteoarthritis[9]. The majority of patients present to primary care with symptoms of pain and stiffness which reduces mobility and with associated reduction in quality of life. 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[3]. When patient's symptoms are not controlled by up to 3 months of non-operative treatment they become candidates for assessment for joint surgery. The decision to have joint surgery is based on the patients pre-

operative levels of symptoms, their capacity to benefit, their expectation of the outcome and attitude to the risks involved. Patients should make shared decisions with clinicians, using decision support such as the NHS Decision Aid for knee osteoarthritis[9].

Obesity is an increasing problem in the population and also a significant risk factor for osteoarthritis. It is often associated with comorbidities such as diabetes, ischemic heart disease (IHD), hypertension (HT) and sleep apnoea. Some years ago, an Arthritis Research Campaign Report[9] stated that joint surgery is less successful in obese patients because:

- Obese patients have a significantly higher risk of a range of short-term complications during and immediately after surgery (e.g. longer operations, excess blood loss requiring transfusions, deep vein thrombosis (DVT) and wound complications including infection).
- The heavier the patient, the less likely it is that surgery will bring about an improvement in symptoms (e.g. they are less likely to regain normal functioning or reduction in pain and stiffness).
- The implant is likely to fail more quickly, requiring further surgery (e.g. within 7 years, obese patients are more than ten times as likely to have an implant failure).
- People who have joint replacement surgery because of obesity related osteoarthritis are more likely to gain weight post operatively (despite the new opportunity to lose weight through exercise following reduction in pain levels).

It also concluded that "Weight loss and exercise combined have been shown to achieve the same level of symptom relief as joint replacement surgery". A study of obese patients with knee osteoarthritis found that those who dropped their weight by 10% after a combination of diet and exercise reported less pain, better knee function, improved mobility and enhanced quality of life[10].

A recent extensive literature review advises assessment of "timely weight loss as a part of conservative care" [11] . It confirms in detail the increased risk of many perioperative and postoperative complications associated with obesity (as well as increased costs and length of stay), such as wound healing/infections; respiratory problems; thromboembolic disease; dislocation; need for revision surgery; component malposition; and prosthesis loosening.

Reference

1. RightCare Commissioning for Value Focus Pack for Vale of York CCG https://www.england.nhs.uk/rightcare/products/ccg-data-packs/focus-packs/

2. NHS Vale of York Clinical Commissioning Group - Prevention and Better Health Strategy https://www.valeofyorkccg.nhs.uk/data/uploads/governing-body-papers/1-september-2016/item-7.1-prevention-and-better-health-strategy.pdf

3. Care and Management of Osteoarthritis NICE Clinical Guidelines CG177 Feb 2014 https://www.nice.org.uk/guidance/CG177/chapter/1-Recommendations#referral-for-consideration-of-joint-surgery-

4. Optimising Outcomes from Elective Surgery Commissioning Statement Statement number: 01 (*link when PDF done*)

5. Obesity prevention NICE CG 43 Dec 2006; last amended March 2015 https://www.nice.org.uk/guidance/cg43

6. RightCare shared decision-making tools

7. NHS Choices: http://www.nhs.uk/chq/Pages/849.aspx?CategoryID=51&SubCategoryID=165

8. Royal College of Surgeons Commissioning Guides: Painful osteoarthritis of the knee November 2013 https://www.rcseng.ac.uk/library-and-publications/rcs-publications/docs/osteoarthritis-knee-guide/

9. Arthritis Research Campaign: "Osteoarthritis and Obesity" (2009) Available AS a PDF on request from the Versus Arthritis Policy team – read more here: https://www.versusarthritis.org/policy/policy-reports/policy-reports-from-2013-and-2014/

10. Effects of intensive diet and exercise on knee joint loads, inflammation, and clinical outcomes among overweight and obese adults with knee osteoarthritis: the IDEA randomised controlled trial Messier et al JAMA 310(12) 1263-73 (2013) https://www.ncbi.nlm.nih.gov/pubmed/24065013

11. Obesity and total joint arthroplasty: a literature based review. Journal of Arthroplasty May 2013 http://www.arthroplastyjournal.org/article/S0883-5403(13)00174-5/abstract

West Yorkshire and Harrogate Health and Care Partnership							
Policy		**Knee Arthroscopy**				**X CCG Ref**	
First Issue Date			**Current version:**			**Last reviewed:**	
Review date			**Contact**				
Clinical Reviewer			**Approved by**				
Referral?		**Prior approval met?**		**IFR?**			

Summary of Policy

- **This commissioning statement refers to:**
  - Knee arthroscopy.

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 Magnetic Resonance Imaging (MRI).

Policy Exclusions

This policy applies to children and adults.

Red flag symptoms or signs include recent trauma, constant progressive non-mechanical pain (particularly at night), previous history of cancer, long term oral steroid use, history of drug abuse or HIV, fever, being systemically unwell, recent unexplained weight loss, persistent severe restriction of joint movement, widespread neurological changes, and structural deformity.

Red flag conditions include acute trauma, infection, carcinoma, nerve root impingement, bony fracture and avascular necrosis.

Knee arthroscopy should NOT be carried out for any of the following indications:

- **Investigation of knee pain (MRI is a less invasive alternative for the investigation of knee pain).**
- **Treatment of osteoarthritis**
- **Patients with non-mechanical symptoms of pain and stiffness in the presence of moderate or severe osteoarthritis.**

Unless there are documented mechanical features of locking which is associated with severe pain, arthroscopic debridement and washout is not routinely funded for chronic pain relief of osteoarthritis of the knee.
The most recent Royal College of Surgeons (RCS) commissioning guide states that knee arthroscopy, lavage and debridement should **NOT** be offered to patients with non-mechanical symptoms of pain and stiffness, and should not be offered as a treatment for osteoarthritis, or in the presence of moderate or severe osteoarthritis in the knee.

It is important to ensure that the evidence base is robust so that patients are not exposed to the risks without good evidence or 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.

Policy Inclusion Criteria

Knee arthroscopy in secondary care is commissioned on a restricted basis. Cases will only be funded if they meet the criteria below:

- All patients being referred for knee arthroscopy should have an assessment of their BMI and smoking status, as well as other 'lifestyle factors' that may influence their long term health outcomes, as part of a 'making every contact count' approach to providing health care services.
- All patients who would benefit from a health improvement intervention to address weight management, smoking or other factors should be made a meaningful offer of support for this at appropriate stages in their conservative management and in all instances before referral is made for surgical assessment.
- Patients considering referral for knee arthroscopy, and without red flag indications, should be managed in line with the WY&H MSK pathway (see xxx) and should not normally be referred for surgical opinion before all appropriate non-surgical management options have been tried and have not been effective.
- Patients who have persistent or progressive symptoms, despite comprehensive non-operative management and good patient engagement and participation in therapy programmes, should have a shared decision making conversation to consider referral for surgical assessment. This should include an understanding of rehabilitation requirements and likely duration. The evidence for risks, benefits and differences in outcomes between surgical intervention and continued non-operative management should be included in this conversation, with a discussion of the patient's treatment / outcome goals. The patient and the clinician should reach a shared decision whether to proceed with referral / surgical intervention.
- Patients who are symptomatically better or who are improving with non-surgical management should not usually be referred for surgical assessment.
- Conservative treatment should in general include activity modification, exercise, physiotherapy, simple analgesia (NSAIDs and/or paracetamol).
- Conservative treatment should usually be tried for a period of 3-6 months prior to referral for knee arthroscopy, and in some instances (e.g. chronic knee pain) conservative management for up to 12 months may be appropriate.
- Patients who demonstrate no improvement in symptoms despite comprehensive conservative management for 3 months should be considered for referral.

Knee arthroscopy may be considered in patients:

- With clear history of mechanical symptoms e.g. locking that has not responded to at least 3 months of non-surgical treatment.
- Where competent clinical examination or MRI has demonstrated clear evidence of an internal joint derangement, meniscal tear, ligament rupture or loose body and where conservative treatment has failed
- Where it is clear that conservative treatment will not be effective
- 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), or where the patient is incompatible with MRI.

Knee arthroscopy is appropriate for the assessment and simultaneous treatment of children and young people with persistent mechanical symptoms, with or without pain, and normal MRIs.

Knee arthroscopy can therefore be carried out for the following where conservative management has been exhausted:

- **Removal of loose body in the presence of true mechanical symptoms**
- **Meniscal repair or resection/repair of chondral defects where conservative management has not been successful**
- **Ligament reconstruction/repair (including lateral release)**
- **Synovectomy**
- **To assist selection of appropriate patients for uni-compartmental knee replacement / high tibial osteotomy / Post arthroplasty / diagnostic biopsy**
- **Post trauma / surgery arthrolysis**
- **Diagnostic to establish a surgical plan especially in multi-ligament injury**
- **Tumour e.g. synovial chondromatosis, PVNS**
- **Treatment of chondral pathology**
- **Osteochondral lesions e.g. osteochondritis dissecans**
- **Spontaneous osteonecrosis**

Imaging

- Knee x-ray should be used as a first-line imaging tool to support / exclude a diagnosis of osteoarthritis or to detect certain more rare pathologies of the knee. Anteroposterior weight-bearing semi-flexed knee radiographs including a lateral view should be included in the work up of the middle-aged or older patient with knee pain.
- Knee MRI is typically not indicated in the first-line work up of middle-aged or older patients with knee joint symptoms, and is therefore not usually requested in primary care. However, knee MRI may be indicated in selected patients with refractory symptoms or in the presence of 'warning flags' or localized symptoms indicating more rare disease.

Funding Mechanism	
Not Applicable	
Funding request form	Not applicable
Summary of evidence / Rationale	Reference also NHS England EBI policy on knee arthroscopy for OA For patients with non-traumatic knee injury, conservative treatment is as effective as arthroscopic knee surgery for some procedures[4]. These include: • Partial menisectomy for degenerative meniscal tears without osteoarthritis[5] or with osteoarthritis[6 7]. • Young patients with a first occurrence of patellar dislocation[8]. • Patellar-femoral pain syndrome[9]. Although rates of post-operative complications are generally low, higher rates have been observed in children and young people[10 11]. In light of the potential future knee damage associated with arthroscopic procedures[12 13], limited and short term (1-2 years) benefit from arthroscopic knee surgery seen in middle aged or older patients with knee pain and degenerative knee disease and increase in significant harms such as deep vein thrombosis, pulmonary embolism, infection

and death[14] , the practice of arthroscopic surgery for middle aged or older patients with knee pain with or without signs of osteoarthritis[14] is not supported.

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

- With clear history of mechanical symptoms e.g. locking that has 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." Although arthroscopic surgery for degenerative knee or knee pain is one of the most common surgical procedures, there is no convincing evidence for the procedure being beneficial beyond the placebo effect[14 16 17 18]. Muscle strength is greater with conservative management (exercise)[19].

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 MRI, have proved poorly associated with symptoms[20].

Rationale for Up to 12 Months of Conservative Treatment in Chronic Knee Pain

Conservative treatment should primarily be used but when this fails referral for surgery is an option. Outcomes for meniscal surgery are more favourable in the short term but by 12 months are equivalent to conservative management[5]. Therefore 12 months of conservative treatment should be attempted before any referral.

Some patients will require more urgent surgery [5] and where symptoms re-occur on conservative management and these patients may benefit from surgery[15]. Patients with mechanical locking or worsening symptoms may be referred before the 12-month period of conservative management is completed.

Arthroscopy for Degenerative Meniscal Tears Relating to Osteoarthritis of the Knee

Recent evidence shows that arthroscopy for degenerative meniscal tears relating to osteoarthritis of the knee (with the exclusion of acute trauma, locked knee, ligament injury and previous knee surgery) for patients 35+ has no significant benefit two years post op over a physiotherapy led exercise program.

Autologous Chondrocyte Implantation

Autologous chondrocyte implantation (ACI) using chondrosphere is

recommended[29] as an option for treating symptomatic articular cartilage defects of the femoral condyle and patella of the knee (International Cartilage Repair Society grade III or IV) in adults, only if:

- the person has not had previous surgery to repair articular cartilage defects
- there is minimal osteoarthritic damage to the knee (as assessed by clinicians experienced in investigating knee cartilage damage using a validated measure for knee osteoarthritis) and
- the defect is over 2 cm^2.

The procedure should be undertaken at a tertiary referral centre.

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 25 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 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 musculoskeletal (MSK) services for this indication[31].

Shared Decision-Making

The overtreatment of knee pain with arthroscopy could be addressed 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]. Shared decision-making for the management of knee pain should begin in the GP surgery and continue through the patient's treatment. Many patients who are adequately supported in the decision-making process would be choose conservative management over surgery.

Reference

1. Painful osteoarthritis of the knee - Royal college of surgeons/BOA commissioning guide November 2013.https://www.boa.ac.uk/wp-content/uploads/2014/08/Painful-osteoarthritis-of-the-knee_Revised-final.pdf
2. National Institute for Health and Clinical Excellence – Arthroscopic knee washout, with or without debridement, for the treatment of osteoarthritis – guidance issue date: 22 August 2007. https://www.nice.org.uk/guidance/IPG230
3. Care and Management of Osteoarthritis NICE Clinical Guidelines CG177 Feb 2014. https://www.nice.org.uk/guidance/CG177/chapter/1-Recommendations#referral-for-consideration-of-joint-surgery-
4. Moseley JB, O'Malley K, Petersen NJ, et al. A controlled trial of arthroscopic surgery for osteoarthritis of the knee. N Engl J Med 2002; 347: 81-8.
5. 5.Sihvonen R et al for the Finnish Degenerative Meniscal Lesion Study (FIDELITY) Group. Arthroscopic Partial Meniscectomy versus Sham Surgery for a Degenerative Meniscal Tear. N Engl J Med 2013; 369: 2515-24.
6. Katz J N et al Surgery versus Physical Therapy for a Meniscal Tear and Osteoarthritis. N Engl J Med 2013; 368(18): 1675-84.
7. Herrlin S V et al Is arthroscopic surgery beneficial in treating non-traumatic, degenerative medial meniscal tears? A five year follow-up. Knee Surg Sports. Traumatol Arthrosc (2013) 21: 358–364.
8. Hing C B, Smith T O, Donell S, Song F. Surgical versus non-surgical interventions for treating patellar dislocation. The Cochrane database of systematic reviews 2011.
9. Kettunen J A et al Knee arthroscopy and exercise versus exercise only for Chronic patellofemoral pain syndrome: a randomized controlled trial. BMC Medicine 2007; 5: 38.
10. Jameson S S et al The burden of arthroscopy of the knee: a contemporary analysis of data from the English NHS. J Bone Joint Surg Br. 2011 Oct; 93(10): 1327-33.
11. Ashraf A et al Acute and subacute complications of pediatric and adolescent knee arthroscopy. Arthroscopy. 2014 Jun; 30(6): 710-4.
12. Petty C A, and Lubowitz J H. Does Arthroscopic Partial Meniscectomy Result in Knee Osteoarthritis? A Systematic Review With a Minimum of 8 Years' Follow-up. Arthroscopy 2011; 27(3): 419-424.
13. Piedade S R et al Is previous knee arthroscopy related to worse results in primary total knee arthroplasty? Knee Surg Sports Traumatol Arthrosc 2009; 17: 328–333.

14. Thorlund J B, Juhl C B, Roos E M, Lohmander L S. Arthroscopic surgery for degenerative knee disease: systematic review and meta-analysis of benefits and harms. BMJ 2015; 350: h2747. http://www.bmj.com/content/350/bmj.h2747
15. Price A, Beard D. Arthroscopy for degenerate meniscal tears of the knee. BMJ 2014; 348: g2382.
16. Arthroscopic surgery for degenerative knee: overused, ineffective and potentially harmful BMJ2015; 350 doi: http://dx.doi.org/10.1136/bmj.h2983 (Published 16 June 2015).
17. Arthroscopic surgery for knee pain. A highly questionable practice without supporting evidence of even moderate quality BMJ2016; 354 doi: http://dx.doi.org/10.1136/bmj.i3934 (Published 20 July 2016).
18. Khan M et al M. Arthroscopic surgery for degenerative tears of the meniscus: a systematic review and meta-analysis. CMAJ 2014; 186: 1057-64.
19. Kise NJ et al Exercise therapy versus arthroscopic partial meniscectomy for degenerative meniscal tear in middle aged patients: randomised controlled trial with two year follow-up. BMJ2016; 354: i3740.
20. Guermazi A et al. Prevalence of abnormalities in knees detected by MRI in adults without knee osteoarthritis: population based observational study (Framingham Osteoarthritis Study). BMJ2012; 345: e5339.
21. Prasad V, Cifu A, Ioannidis JP. Reversals of established medical practices: evidence to abandon ship. JAMA2012; 307:37-8.
22. Crawford R et al. Magnetic resonance imaging versus arthroscopy in the diagnosis of knee pathology, concentrating on meniscal lesions and ACL tears: a systematic review. British medical bulletin 2007; 84:5-23.
23. Bryan S et al. The cost-effectiveness of magnetic resonance imaging for investigation of the knee joint. Health Technol Assess 2001; 5(27):1-95.
24. Laupattarakasem W et al. Arthroscopic debridement for knee osteoarthritis. The Cochrane database of systematic reviews 2008.
25. Health Quality Ontario. Arthroscopic lavage and debridement for osteoarthritis of the knee: an evidence-based analysis. Ontario health technology assessment series 2005; 5(12): 1-37.
26. Reichenbach S et al. Joint lavage for osteoarthritis of the knee. The Cochrane database of systematic reviews 2010.
27. NICE Interventional Procedure Guidance 430. Partial replacement of the meniscus of the knee using a biodegradable scaffold. 2012.
28. NICE Interventional Procedure Guidance 162. Mosaicplasty for knee cartilage defects. 2006.

29. NICE Technology Appraisal 508. The use of autologous chondrocyte implantation using chondrosphere for the treatment of cartilage defects in knee joints. 2018. https://www.nice.org.uk/guidance/ta508/chapter/1-Recommendations
30. NICE Interventional Procedure Guidance 474. Arthroscopic trochleoplasty for patellar instability. 2014.
31. Knee arthroscopy for chronic knee pain. Cambridgeshire and Peterborough CCG policy approved Sept 2015. http://www.cambsphn.nhs.uk/CCPF/PHPolicies.aspx
32. Arthroscopic surgery for knee pain; where is the shared decision making? Letter from Dr S Finnikin GP. http://www.bmj.com/content/354/bmj.j3934/rr/927387
33. Osteoarthritis of the knee shared decision-making tool.
34. Orthopaedic groups apologise after claiming that 'GPs not doing their job properly' http://www.pulsetoday.co.uk/clinical/more-clinical-areas/musculoskeletal/orthopaedic-groups-apologise-after-claiming-that-gps-not-doing-their-job-properly/20010420. full article.
35. NICE Interventional Procedure Guidance 474. Arthroscopic trochleoplasty for patellar instability. 2014.

Appendix 3. Quality and Equality Impact Assessment

West Yorkshire and Harrogate Health and Care Partnership

This summary sheet provides an overview of the staff involved, proposed change and a summary of the findings. This assessment consists of five domains: Patient Experience, Patient Safety, Effectiveness, Equality and Workforce.

Title of Scheme:	Knee replacement pathway		
Project Lead:	Joanne Rattray, Planned Care Team, WYH HCP		
Clinical Lead:	James Thomas	Programme Lead:	Catherine Thompson
Senior Responsible Officer:	Matt Walsh	Date:	Jul-19

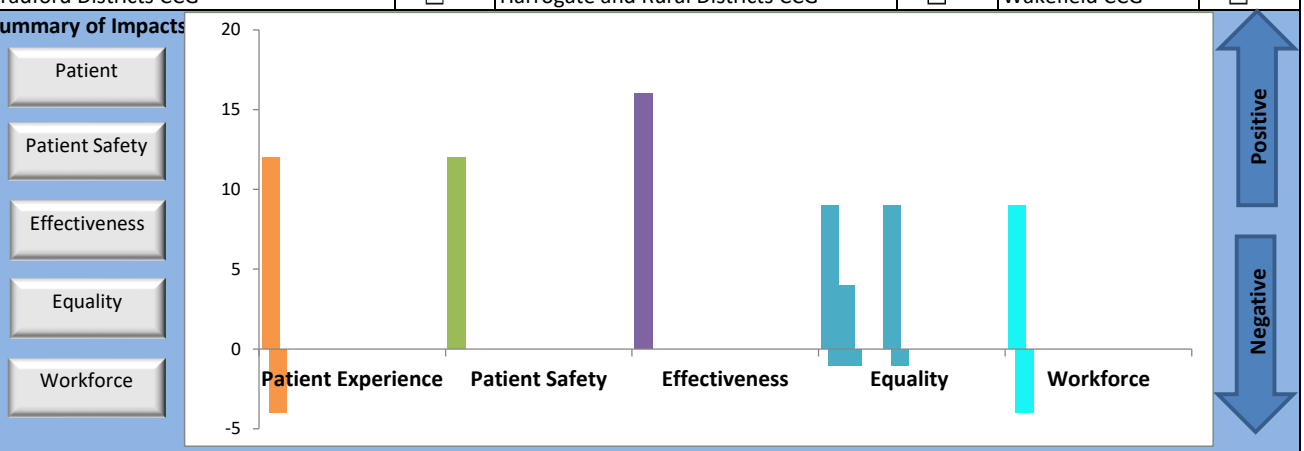
Proposed change:

All pathway are broadly similar - this is about standardising the finer details of the policy to ensure a consistent approach to its application across West Yorkshire and Harrogate.
It is proposed that there is no weight limit identified however this will not supersede any CCG which has a broader 'Health Optimisation' policy in place.
The Knee Replacement Pathway has been reviewed and standardised across the nine CCGs to create a single pathway for service design and delivery in each place.
The single pathway draws together and harmonises the core components of the existing Knee replacement pathways from each of the nine CCGs of WY&H, and adds in the elements of best practice which are new recommendations in national guidance from NHS England, and local expert clinical opinion in WY&H.

Which areas are impacted?

Airedale, Wharfedale and Craven CCG	☑	Calderdale CCG	☑	Leeds CCG	☑
Bradford City CCG	☑	Greater Huddersfield CCG	☑	North Kirklees CCG	☑
Bradford Districts CCG	☑	Harrogate and Rural Districts CCG	☑	Wakefield CCG	☑

Summary of Impacts



Summary of findings:

The pathway ensures a consistent approach across West Yorkshire and Harrogate HCP to provide a consistent approach to treatment. It has also been identified that people will be supported to make better lifestyle choices and receive advice regarding exercise therapies. Consequently there is a positive impact on patient experience due to improved outcomes. In certain areas at Place, patients will experience an enhancement following the implementation of the knee debridement policy. These positive impacts have also been identified to include a greater sense of control for the patient through shared decision making and the inclusion of patient initiated follow-ups . Additional positive impacts have also been identified for patient safety and clinical effectiveness as the pathway and policies are in line with national guidance. Workforce will be positively impacted due to the improved integration of services and new career development opportunities. There may be an initial negative impact for patients who do not meet the threshold however mitigating factors such as the inclusion of shared decision making should reduce this. Alternative appropriate treatments will be offered, however initially increased access to exercise and smoking cessation services may lead to increased waiting times. Work needs to take place to increase the capacity in these areas. Minor impacts have been identified within the Equality section which relate to certain people having particular protected characteristics, such as ethnicity, religion, beliefs or people who are are carers. In these situations mitigating actions have been identified regarding appropriate communication tools and accessibility of information. Where enhancement for patients has been identified in certain Places, this may lead to increased pressure on services and staff capacity in the locality.

Summary of Next Steps:

Commisoner led engagement with staff and clinicians as to the changing pathway at Place and implacations for the workforce. Engagement with patients through GP led shared decision making conversations, on changing threshold and entitlement to intervention, and adopting a therapy led approach.

Has this been incorporated into the project documentation?	**Yes**	**Included in draft commissioning policy paper to Clinical Forum in August 2019**