NHS
South Norfolk
Clinical Commissioning Group

Agenda item: 9.2

Subject:	**Hip and Knee Arthroplasty policy**
Presented by:	**Dr Dustyn Saint** **Louise Browning**
Submitted to:	**Governing Body**
Date:	**24 March 2015**

Purpose of paper:

To present the new Norfolk wide hip and knee policy and make recommendations on its implementation across all SNCCG member Practices from 1 April 2015.

Background

The new hip and knee policy for Norfolk has been developed over the past 18 months by the Clinical Policy Development Review Group chaired by Dr Shamsher Diu (Public Health).

This policy sets out the criteria that must be met before a referral is made for hip or knee replacement surgery (arthroplasty) or knee arthroscopy. Pages 6-8 now include guidance for clinicians on the criteria that must be met before referral. These criteria include Body Mass Index (BMI), weight management and smoking cessation.

Next steps:

In order to ensure the smooth implementation of the new policy the CCG need to undertake the following steps:

1. Ensure the delivery of an effective plan of communication/circulation to all member Practices as soon as Governing Body approval is granted. This should include an education event during April for all member Practices.
2. Ensure the necessary amendments are made to referral templates and placed on Knowledge Anglia.
3. Ensure clear communication and engagement is established with NCH&C to ensure their MSK triage service is fully aware of the content of the policy and there are checks in place to ensure all referrals are compliant with the criteria.
4. Ensure clear communication with NNUH to inform the Trust on the implementation date of the new policy and steps taken in primary care and triage to ensure all referrals comply.
5. For those referrals that fall outside of the criteria and have reached the orthopaedic department at NNUH it should be made clear these will be the subject of prior approval.

Recommendation to Governing Body:

The Governing Body is asked to support the introduction of this policy across SNCCG with immediate effect and approve the steps required for effective implementation.

Key Risks	
Clinical:	N/A
Finance and Performance:	
Impact Assessment (environmental and equalities):	N/A
Reputation:	
Legal:	None
Resource Required:	N/A
Reference document(s):	N/A

GOVERNANCE

Process/Committee approval with date(s) *(as appropriate)*	

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Great Yarmouth and Waveney Clinical Commissioning Group | North Norfolk Clinical Commissioning Group | Norwich Clinical Commissioning Group | South Norfolk Clinical Commissioning Group | West Norfolk Clinical Commissioning Group

Hip and Knee Arthroplasty policy

Produced by:	Dr Suzy Duckworth, Dr Tha Han, Dr Shamsher Diu Suzanne Meredith Public Health, Norfolk County Council	**Approved by:**	Clinical Policy Development Group of the Independent Funding Requests Panel, Norfolk and Waveney
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Status:	Final	**Date of this version:**	2015 02 05
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Version Control Sheet				
Version	**Section/Para/ Appendix**	**Description of Amendments**	**Date**	**Amended by**
15.0	Whole document	Re-formatted to new agreed policy template	191014	Suzanne Meredith
	Section 1.1	New plain English summary		
	Section 1.2	Amendments to criteria re weight and smoking		
	Section 3.2.4	Amended regarding weight and referral		
	Section 3.2.5	Amended regarding referral to smoking cessation		
	Section 3.4	Removal of pharmacological advice – replaced with reference to NICE and local formularies		
15.1	Section 2.2	Minor amendments to statistical information based on consultation comments	211014	Suzanne Meredith
15.2	Section 1.2	Following peer review amendments to criteria for BMI and smoking, documented evidence, use of New Zealand Score and Exceptional circumstances.	041114	Shamsher Diu Joanne Creaser Suzanne Meredith
	Section 1.3	Re-formatting of paragraph.		
	Section 2.1.4	Additional information added re NICE Technology appraisals and National Joint Registry.		
	Sections 3.2.4 and 3.2.5	Changes to BMI and Smoking criteria		
	Figure 4	Moved to Appendix 1		
	Appendix 2	Abridged New Zealand Score added		
16.0	Sections 1.1,2.1, 3.3.1	Minor wording changes	131114	Suzanne Meredith on behalf of CPDG
	Section 1.2, 3.2.4 and 3.2.5	Changes to policy criteria including BMI and smoking		
	Section 2.2.1	Removed		
	Section 3.4.1	Amended wording relating to Intra-articular injections		
	Section 2.2	Epidemiology, data updated		
16.1	Sections 1.2 and 3.2.4	Weight reduction quantified “at least 5%”	111214	Suzanne Meredith
	Section 2.2	Minor amendment		
16.2	Section 1.2, 3.2.4 and 3.2.5	Changes to policy criteria BMI and smoking following consultation	300115	Suzanne Meredith
16.3	Appendix 5	Addition of supporting OPCS codes	050215	Suzanne Meredith

	Section 1.2	Item 10 removed from criteria and added as statement underneath box		
	Section 3.3.1	Term “Orthoses” added to sentence		

Contents

Acknowledgements
The authors are grateful for the invaluable support of the North and East London Commissioning Support Unit (CSU) in ensuring liaison with individual service and business managers at the James Paget Hospital, Great Yarmouth, the Norfolk and Norwich University Hospital, Norwich and the Queen Elizabeth Hospital, Kings Lynn and their efforts to consult with key clinicians in the appropriate specialties at every stage of the development of this policy. Individuals who contributed to this process are acknowledged in Appendix 4.

1.0 Criteria for Commissioning

1.1 Plain Language Summary

This policy sets out the criteria that must be met before a referral is made for hip or knee replacement surgery (arthroplasty) or knee arthroscopy.
Hip or knee replacement surgery (known as arthroplasty) involves replacing a damaged, worn or diseased joint with an artificial one, commonly as a result of damage caused by osteoarthritis.
Osteoarthritis occurs when a joint becomes damaged over time and the surrounding cartilage wears away. This causes the bones to rub together leading to pain, stiffness and loss of movement.
Knee Arthroscopy is a procedure where a small camera is inserted into the knee so the surgeon can see inside the knee. It can be used to diagnose and treat problems with the knee.

1.2 Policy Statement - Hip and Knee Arthroplasty

The CCGs will only fund Hip or Knee Arthroplasty when the following criteria have been met:

Procedure	Guidance for Clinicians
Hip and Knee replacement (Arthroplasty)	Patients should meet **all** of the following criteria: 1. There is evidence that conservative measures (see section 3.2) have been trialled for at least six months and failed to alleviate pain and/or disability. 2. A holistic assessment of the patient has been undertaken (See Appendix 1). 3. Patients with a **BMI of over 35** must be advised to lose weight to reduce the risk of complications and improve outcomes. Patients with a BMI of over 35 should be offered referral (where available) or signposted to local weight management programmes to support weight loss. 4. **Patients who smoke** should stop smoking for at least eight weeks prior to surgery to reduce the risk of surgery and post-surgery complications. Patients should be offered referral to a stop smoking programme. 5. The patient is suffering from persistent pain which has not been controlled by conservative measures and which has been documented over a period of six

	months. 6. The patient has functional limitation which has not been improved by conservative measures and which has been documented over a period of six months. 7. There is evidence of joint damage. 8. The patient is assessed with a score of 15 or over using the locally modified version of the New Zealand score (see Appendix 2). 9. The patient has been advised to use the NHS Patient Decision Aids to support making an informed choice (see section 3.2.1) and is willing to consider surgery.
Exceptional Circumstances	Where the referrer considers that there are exceptional clinical circumstances an application should be made to the IFR panel.

The referral must be supported with clear evidence, which includes clinical, radiological and holistic assessment to confirm the above criteria.

1.3 Policy Statement - Knee Arthroscopy

Procedure	Guidance for Clinicians
Knee Arthroscopy	1. The following procedures* will be funded if mechanical symptoms with or without effusion are present following X-Ray/MRI: - Meniscal surgery - Repair of cruciate ligament - Synovectomy, synovial biopsy - Assessment of articular surfaces, prior to osteotomy, partial replacement/arthroplasty - Osteochondritis dissecans There is no evidence for the use of arthroscopy for the primary investigation of knee pain. MRI should be used first if appropriate**. 3. Arthroscopy is not indicated in the management of advanced degenerative disease, Chondromalacia patella or by the presence of Synovial Plica.

	4. Arthroscopic lavage and debridement as part of treatment for osteoarthritis is not indicated, unless the person has knee osteoarthritis with a clear history of mechanical locking (as opposed to morning joint stiffness, 'giving way' or X-ray evidence of loose bodies) (NICE, 2014). *** Patients within the acute setting who need immediate treatment e.g. following meniscal and chondral injury are exempt from this policy.** **Indications for Knee MRI: Investigation of knee pain in patients under 50 years of age (unless clinical concern of tumour); plain x-rays should be carried out first in patients over the age of 50 (MRI over diagnoses meniscal pathology in this group) [1]

1.4 Equality Statement

The Clinical Policy Development Group is committed to ensuring equality of access and non-discrimination as enshrined in the Health and Social Care act 2010. In carrying out its functions, the CPDG will have due regard to the different needs of protected equality groups, in line with the Equality Act 2010. This document is compliant with the NHS Constitution and the Human Rights Act 1998.

1.5 Clinical Governance Statement

It is important that the implementation of this policy is seen as an opportunity to encourage team working and cooperation between commissioners, primary, secondary care providers and at the interface between them. Providers should consider the resources needed for successful implementation, tailoring support to suit local circumstances, taking into account any potential barriers. It is expected that implementation of this policy will be monitored through a professionally-led clinical review and audit cycle. Providers should discuss this with their clinical effectiveness lead in the first instance. For guidance in conducting an audit or review you may also contact the Public Health team at Norfolk County Council at hphprojects@Norfolk.gov.uk. *(New e-mail address under development will be in place by policy launch)*

2.0 Background

2.1 Definitions of Condition and Treatment

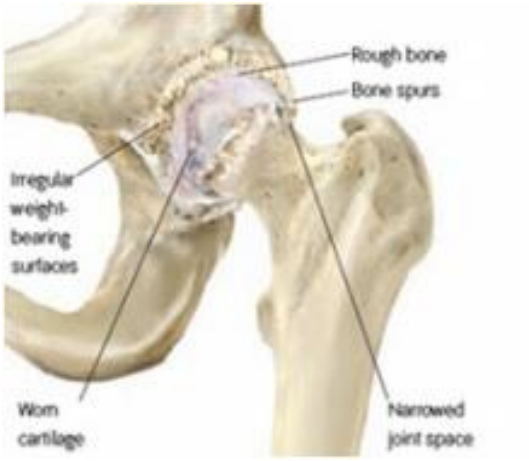
The hip and knee joints are two of the largest joints in the body. Their articular surfaces are covered by a smooth layer of cartilage, supported by ligaments, muscles and tendons, allowing unrestricted movement during daily activities. Over time, due to diseases such as Osteoarthritis (OA), articular surfaces become rough and uneven, meaning the joint cannot move as well (figure 1 and 2).

Osteoarthritis can be diagnosed clinically without investigations if a person:

- is 45 or over **and**
- has activity-related joint pain **and**
- has either no morning joint-related stiffness or morning stiffness that lasts no longer than 30 minutes

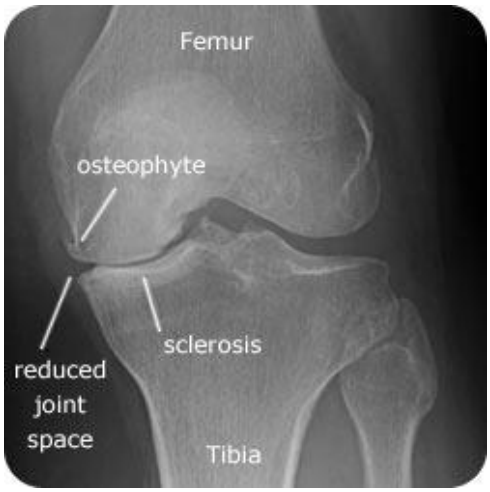
Atypical features, such as a history of trauma, prolonged morning joint-related stiffness, rapid worsening of symptoms or the presence of a hot swollen joint, indicate alternative or additional diagnoses. Important differential diagnoses include gout, other inflammatory arthritides (for example, rheumatoid arthritis), septic arthritis and malignancy (bone pain).

Figure 1: Diagram of Hip OA



Source: ***www.kneeandhip.co.uk***

Figure 2: X-Ray image of Knee OA



Source: ***www.stemcelldoc.wordpress.com***

In Britain, OA affects 1 in 5 of over 65 year olds; the hip and knee being two of the most commonly affected sites.[2] OA is the leading cause of pain and disability in the UK[3] with 85% of all hip and knee replacements being carried out due to clinical OA.[4] It manifests as pain, stiffness, swelling (of the knee) and reduced range of movement[5] and is the result of progressive degeneration of the cartilage of the joint surface.

2.1.1 Total hip replacement (arthroplasty)

Total hip replacement (THR) describes the replacement of a damaged hip joint, with an artificial hip prosthesis consisting of a cup, a femoral stem, and a femoral head. There are different types of THR using a range of articular surfaces (metal, ceramic, polyethylene, ceramicised metal); methods of implant fixation (cemented, cementless, hybrid, reverse hybrid); and implant component size, meaning individual patient assessment is vital. Over 80,000 hip replacements are performed per year in the UK[6] with 80% lasting 20 years.

2.1.2 Knee arthroscopy

Knee arthroscopy is a common procedure, usually performed as a day case. It requires approximately 2-3 small incisions to be made, usually into the front of the

knee, so that a small camera can be inserted. The procedure enables accurate diagnosis of knee injury, but also allows laparoscopic treatment or surgical repair.

2.1.3 Total knee replacement/arthroplasty

Total knee replacement (TKR) was developed following the success of hip replacement surgery, with much of the pioneering work done in Britain. Knee replacement surgery today has a high rate of success in relieving pain and restoring mobility.[7] Most total knee replacement operations involve replacing the joint surfaces that make up the joint. The new parts are normally cemented in place, although cementless parts are also sometimes used.

2.1.4 Treatment for clinical hip and knee OA

Treatment options vary depending on disease severity and individual circumstances. Conservative treatments include medication to relieve pain and inflammation, physiotherapy and injection of corticosteroids into the joint. If these treatments are ineffective, joint replacement surgery may be appropriate. NICE technology appraisals are in place for hip and knee replacement[8].

The National Joint Registry (NJR) was set up by the Department of Health and Welsh Government in 2002 to collect information on all hip, knee, ankle, elbow and shoulder replacement operations and to monitor the performance of joint replacement implants[9].

2.2 Epidemiology

Within the Norfolk and Waveney CCG areas, there has been a general rising trend in the number of hip and knee replacements carried out over the last ten years (see Figures 3-7). The trends are generally in line with what is expected. However:

- Great Yarmouth and Waveney (Figure 3) and North Norfolk (Figure 4) exceeded expected numbers of both hip and knee replacements in 2013/14.
- Norwich (figure 5) and South Norfolk (figure 6) had higher number of hip replacements than expected but lower levels of knee replacements.
- West Norfolk (Figure 7) had lower than expected numbers of both hip and knee replacements.

Figures 3-7 Observed and expected Hip and Knee Replacements 2002-2014 for CCGs in Norfolk and Waveney (Source: Dr Foster)

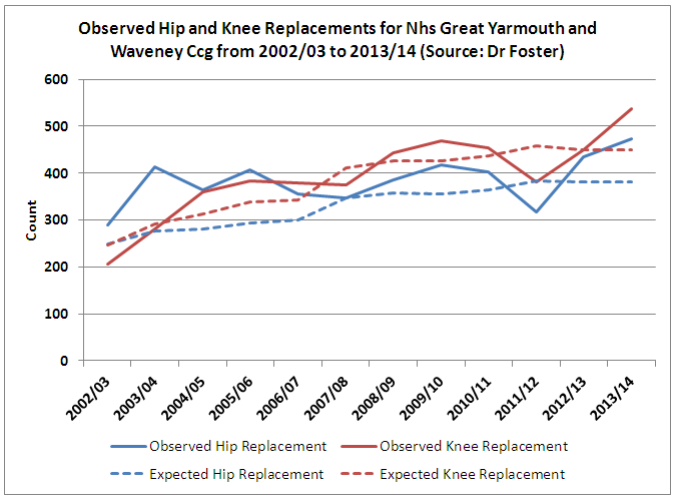


Figure 3

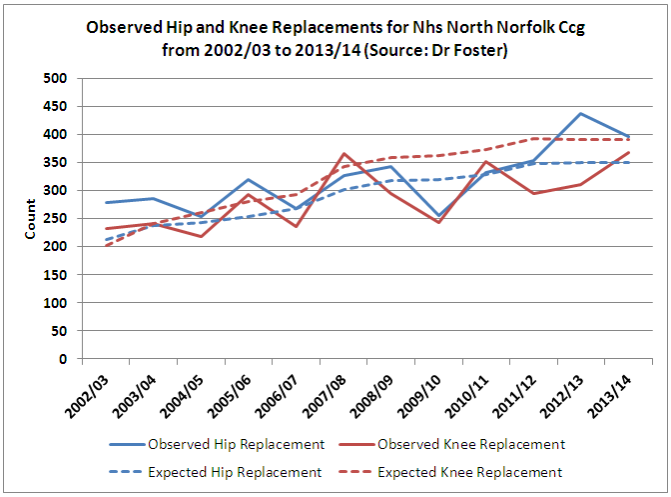


Figure 4

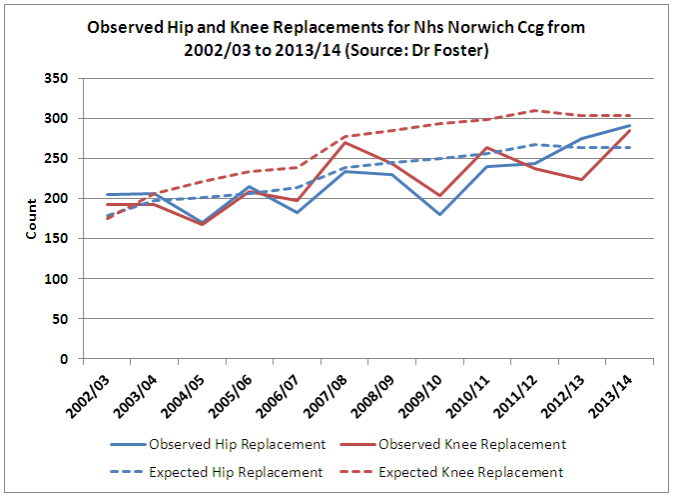


Figure 5

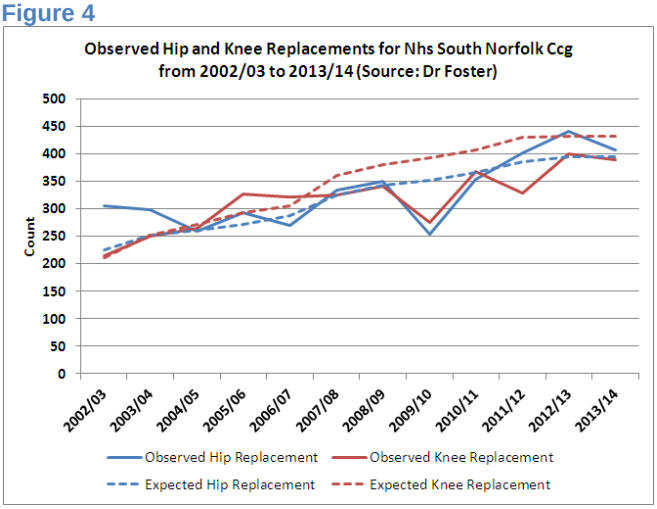
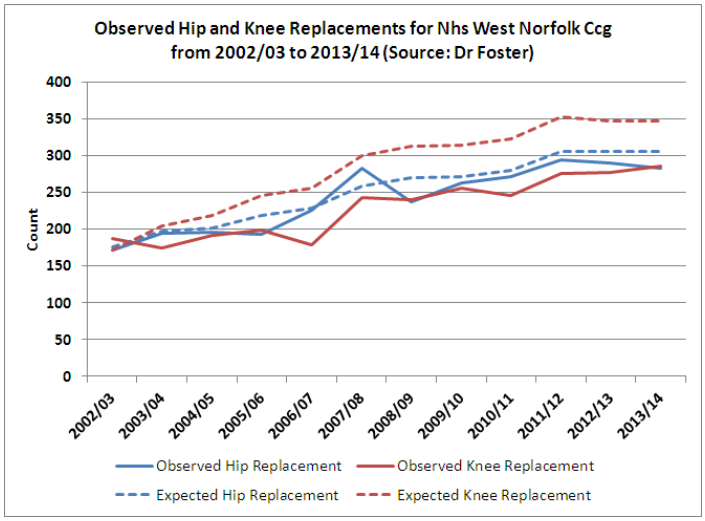


Figure 6



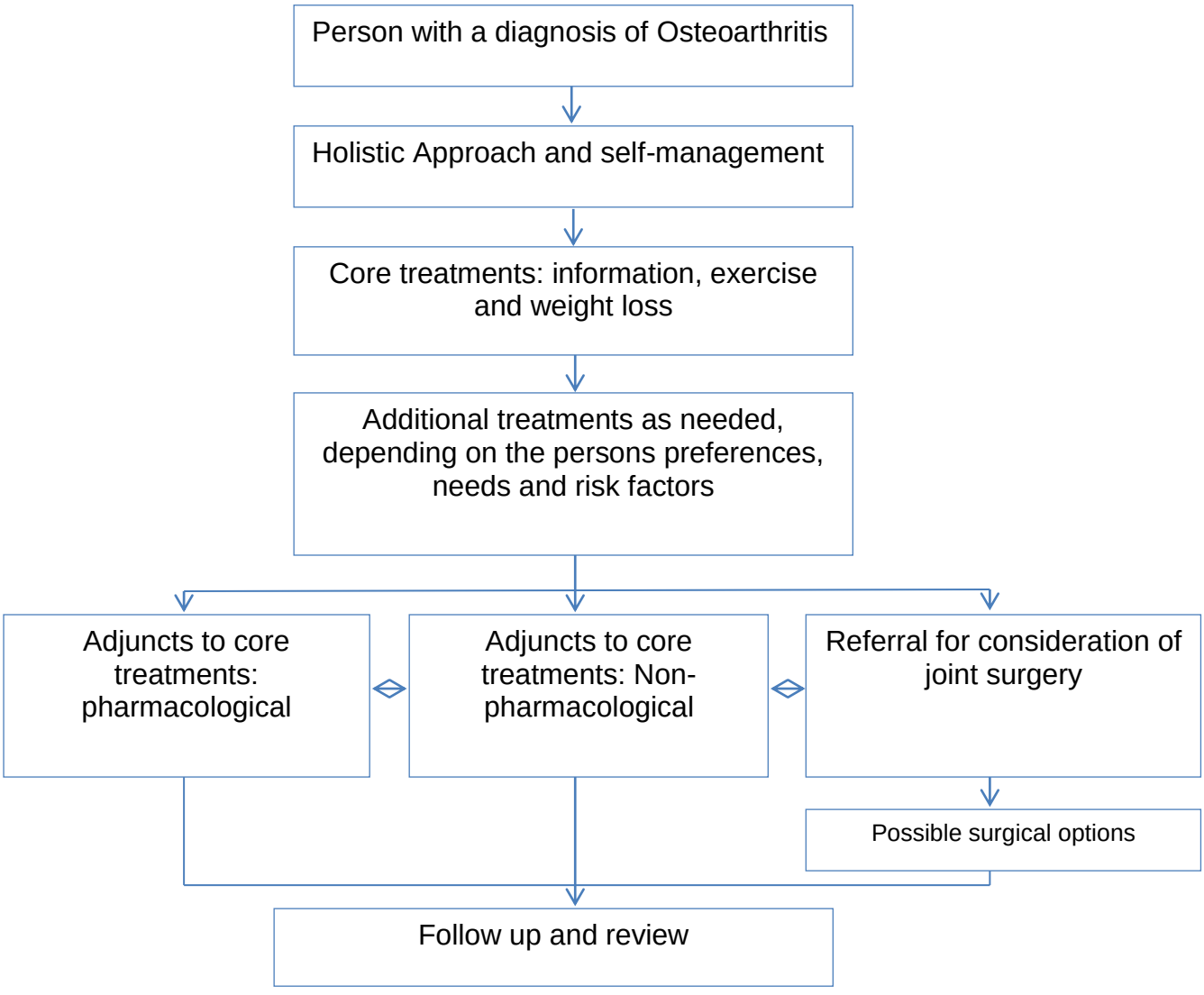
3.0 National/Local Guidelines

The NICE clinical guideline for Osteoarthritis (NICE CG177 Osteoarthritis: Care and management in adults, 2014) [10] states that all individuals should undergo a thorough holistic assessment and conservative management before they are referred for a consultant opinion for surgical intervention. They then should be regularly reassessed before possible referral to the secondary sector.

Figure 3 sets out the recommended pathway to support care and management.

The full version of this with links to further guidance is available from the NICE website
http://pathways.nice.org.uk/pathways/osteoarthritis#path=view%3A/pathways/osteoarthritis/management-of-osteoarthritis.xml&content=view-index

Figure 3: **Pathway for the management of Osteoarthritis in Adults (Reproduced from NICE CG177, 2014)**



3.1 Holistic Approach and self-management

Appendix 1 is an extract from the NICE guidance CG177. It is intended as an aid to prompt questions in terms of the effect of osteoarthritis on the person's function, quality of life, occupation, mood, relationships and leisure activities.

3.2 Conservative Measures

Conservative management is a key element in the care of all patients with osteoarthritis. This includes general advice, exercise, weight reduction (if required), use of adjuncts and referral to smoking cessation services (if required).

The GP needs to formulate and agree an individualised self-management strategy/plan with the person (and their family members or carers as appropriate) for conservative management of their condition that encourages positive behaviour changes as highlighted in the sections below. The patient needs to be actively involved in relation to shared decision-making.

3.2.1 Patient Decision Aids

The use of the online NHS Patient Decision Aids (PDA) is recommended. These aids provide useful information and structure for patients to make informed choices and are available following the links below:

Osteoarthritis of the hip: http://sdm.rightcare.nhs.uk/pda/osteoarthritis-of-the-hip/
Osteoarthritis of the knee: http://sdm.rightcare.nhs.uk/pda/osteoarthritis-of-the-knee/

3.2.2 General advice

NICE guidance CG177 recommends that accurate verbal and written information should be offered to all patients with osteoarthritis to enhance the understanding of the condition and its management. This will also help to counter misconceptions, such as that it inevitably progresses and cannot be treated.

An appropriate clinician also needs to offer advice on appropriate footwear (including shock-absorbing properties) as part of core treatments for people with lower limb osteoarthritis.

The information sharing should be on-going and integral part of the management plan rather than a single event at time of presentation. The online PDA mentioned in 3.2.1 above can be used to facilitate this process.

3.2.3 Exercise

All individuals with osteoarthritis need to be advised to engage in a programme of on-going, continuous exercise as a core treatment, irrespective of age, comorbidity, pain severity or disability. Exercise should include:

- Local muscle strengthening and
- General aerobic fitness.

The clinician needs to make a judgement in each case on how to effectively ensure participation in exercise programmes. This will depend upon the person's individual needs, circumstances and self-motivation, and the availability of local facilities or guided exercise programmes.

3.2.4 Weight reduction

Weight loss should be a core treatment to those who are obese (BMI ≥30)[11] as a larger BMI is related to lower functional independence and longer length of stay.[12] [13]

Obese patients should be assessed and managed in accordance with NICE guidance[14].

Patients with a **BMI of over 35** (Obesity Class II and above) must be advised to lose weight to reduce the risk of complications and improve outcomes.

Patients with a BMI of over 35 should be offered referral (where available) or signposted to local weight management programmes to support weight loss.

3.2.5 Smoking cessation

Preoperative smoking has been shown to increase the likelihood of poor wound healing, cardiovascular complications and the need for repeat surgery.[15]

Patients who smoke should stop smoking for at least eight weeks prior to surgery to reduce the risk of surgery and post-surgery complications.
Patients should be offered referral to a stop smoking programme

3.3 Treatment adjuncts

NICE 2014 recommends that primary care clinicians should also consider treatment adjuncts such as:

- Transcutaneous Electrical Nerve Stimulation machines
- Manipulation and stretching for osteoarthritis of the hip
- Thermotherapy – use of or hot or cold local heat source

as some patients may benefit from their analgesic effects.[16]

3.3.1 Aids and devices

People with osteoarthritis who have biomechanical joint pain or instability should be considered for assessment for bracing/joint supports/insoles (i.e. orthoses) as an adjunct to their core treatments.

Assistive devices (for example, walking sticks) should be considered as adjuncts to core treatments for people with osteoarthritis who have specific problems with activities of daily living. If needed, seek expert advice in this context (for example, from occupational therapists or Disability Equipment Assessment Centres).

3.4 NICE Guidance re Pharmacological Management

Patients should be on optimal treatment of conservative management while assessing for major joint intervention, one key part being the pharmacological aspects. Pain is subjective and influenced by a range of environmental stressors, making the assessment and comparison of pain, or the effects of analgesia, challenging.

NICE CG177 offers guidance for pharmacological management of pain due to osteoarthritis. Clinicians are advised to keep up to date with further guidance as it is released and refer to local formularies.

NICE does not recommend the use of acupuncture or rubefacients for treating osteoarthritis.

3.4.1 Intra-articular injections

3.4.1.1 Corticosteroid injections in the Knee

The evidence base suggests that there is short-term benefit for up to one to three weeks in terms of pain reduction. It does not show any improvement in functional movement or the quality of life.

3.4.1.2 Corticosteroid injections in the Hip

There is no conclusive evidence to support the use of intra-articular injections in the management of osteoarthritis in the hip.

In view of the limited benefits of intra-articular corticosteroids for the knee and the lack of evidence for the hip, these injections should **only** be administered by an appropriately trained and skilled person.

3.4.1.3 Intra-articular Hyaluronan injections

NICE 2014 states that intra-articular hyaluronan injections for the management of osteoarthritis should not be offered.

3.5 Follow-up and review in Primary/ Community settings

NICE guidance CG177 recommends that regular reviews are offered to all patients with symptomatic osteoarthritis. The timing of the reviews should be agreed with the patient.

Clinicians may prefer to continue to use the New Zealand Criteria for Major Joint Intervention (full or abridged versions) to support regular patient assessments (see Appendix 2). The NHS Patient Decision Aid can also be used to facilitate this process (see 3.2.1).
The reviews should include:

- monitoring the person's symptoms and the ongoing impact of the condition on their everyday activities and quality of life
- monitoring the long-term course of the condition
- discussing the person's knowledge of the condition, any concerns they have, their personal preferences and their ability to access services
- reviewing the effectiveness and tolerability of all treatments
- support for self-management.

Consider an annual review for any person with one or more of the following:

- troublesome joint pain
- more than one joint with symptoms
- more than one comorbidity
- taking regular medication for their osteoarthritis.

3.5.1 Discussing the "pro et contra" of proposed surgery

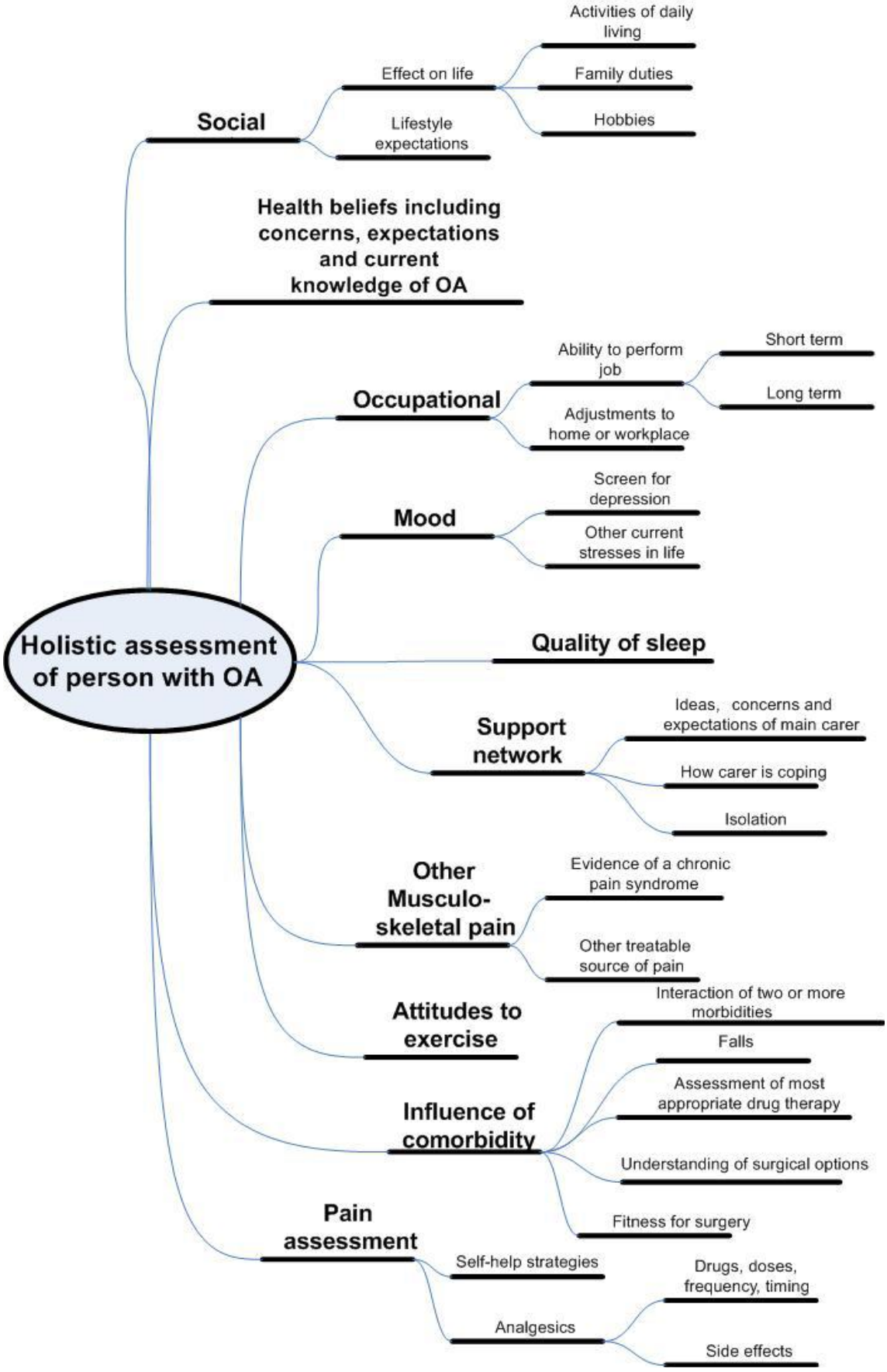
NICE guidance states that when discussing the possibility of joint surgery, it is important to check that the patient has been offered at least the core treatments for osteoarthritis and they have received information about:

- the benefits and risks of surgery and the potential consequences of not having surgery
- recovery and rehabilitation after surgery
- how having a prosthesis might affect them
- how care pathways are organised in their local area.

The GP (or equivalent) is best placed to lead this discussion. The online NHS Patient Decision Tool (section 3.2.1) can be used to facilitate this process. A similar discussion needs to take place following the Consultant's assessment.

Reference

Appendix 1 Holistic Assessment Aide Memoire (NICE, 2014)

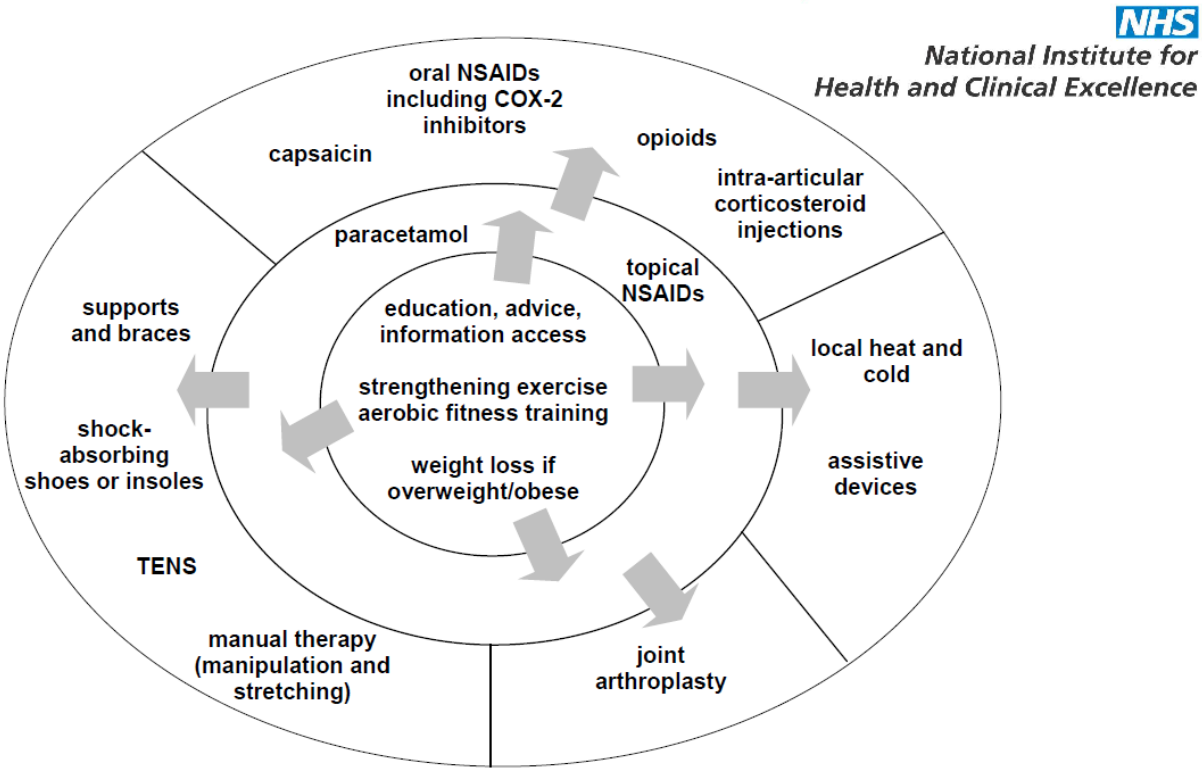


Appendix 2: New Zealand Score (locally abridged) (See Knowledge Anglia http://nww.knowledgeanglia.nhs.uk/musculoskeletal.htm)

Having established the diagnosis of **Hip/Knee*** arthritis, please quantify the following:		Score	Add relevant score
1.	**How bad is your hip/knee pain?**		0
	• None	0	0
	• Mild (occasional pain with longer walks)	1	0
	• Moderate (pain with most activity and walking)	3	0
	• Severe (constant pain – little relief and/or giving way)	5	0
2.	**How bad is your night pain?**		0
	• None	0	0
	• Mild (doesn't wake you)	1	0
	• Moderate (occasionally wakes you)	3	0
	• Severe (regularly wakes you)	5	0
3.	**How far can you walk?**		0
	• Unlimited	0	0
	• ½ to 1 mile	1	0
	• ¼ to ½ mile	3	0
	• Less than ¼ mile	5	0
4.	**How often do you need painkillers?**		0
	• Occasionally	0	0
	• Regularly	3	0
5.	**Is your pain getting worse?**		0
	No	0	0
	Yes	3	0
		Total Score	0
	To update the "Total Score" right click the total and select "Update Field"		

Appendix 3: Available treatments for Osteoarthritis

Source: NICE, 2014



- Core treatments are at the centre of the circle.
- The second circle contains the relatively safe pharmaceutical options.
- The outer circle contains adjunctive treatments and is divided into four groups: pharmaceutical options, self-management techniques, surgery and other non-pharmaceutical treatments.
- Treatments should be adjusted according to individual needs, risk factors and preferences.

Appendix 4: Individuals consulted in the development of this policy

Many thanks to the following individuals who were consulted in the development of this policy:

Name	Designation	CCG/Acute provider
CCG clinicians		
Dr Hitesh Kumar	GP representative	NHS Great Yarmouth & Waveney CCG
Prof David Scott	Clinical Advisor	NHS Great Yarmouth & Waveney CCG
Dr Paul Berry	GP	NHS Great Yarmouth & Waveney CCG
Dr Alasdair Lennox	GP representative	NHS North Norfolk CCG
Dr Brian Cole	GP representative	NHS Norwich CCG
Dr Anthony Lister	GP	NHS Norwich CCG
Dr Les Cooper	GP representative	NHS South Norfolk CCG
Dr Keeva Rogers	GP	NHS South Norfolk CCG
Dr Dustyn Saint	GP	NHS South Norfolk CCG
Louise Stevens	CCG representative	NHS West Norfolk CCG
Dr Paul Williams	GP	NHS West Norfolk CCG
Dr Mark Funnell	GP	NHS West Norfolk CCG
Dr Anthony Burgess	GP and CCG Governing member	NHS West Norfolk CCG
Dr Pallavi Devulapalli	GP	NHS West Norfolk CCG
Dr Ian Mack	Chair	NHS West Norfolk CCG
Dr Maggie Carter	Clinical Governance Lead	NHS West Norfolk CCG

CCG Colleagues		
Michael Dennis	Prescribing Advisor	NHS Great Yarmouth & Waveney CCG
Kerry Dos Anjos	Commissioning Manager	NHS Great Yarmouth & Waveney CCG
Kathryn Griffiths	Project Management Specialist	(representing) NHS Great Yarmouth & Waveney CCG
Rachel Leeds	Commissioning Manager	NHS Great Yarmouth & Waveney CCG
Sally Nye	Commissioning Manager	NHS Great Yarmouth & Waveney CCG
Ellis Layward	Commissioning Manager	NHS North Norfolk CCG
Lindsay Springall	Commissioning Manager	NHS Norwich CCG
Ben Hogston	Programme Manager	NHS Norwich CCG

Jim Barker	Assistant Director, Acute Commissioning	NHS South Norfolk CCG
Louise Browning	Independent Consultant	(representing) NHS South Norfolk CCG
Anne Moates	Lead Commissioner	NHS South Norfolk CCG
Debbie Oades	Lead Commissioner	NHS South Norfolk CCG
Jan Sanders	Commissioning Manager	NHS West Norfolk CCG
Acute provider colleagues		
Mr Adam Cohen	Consultant Orthopaedic Surgeon	James Paget University Hospital NHSFT
Mr Hersch Deo	Consultant Orthopaedic Surgeon	James Paget University Hospital NHSFT
Belinda Hardwick	Outpatients Manager	James Paget University Hospital NHSFT
Mr Devender Khurana	Consultant Orthopaedic Surgeon	James Paget University Hospital NHSFT
Rachel Lavers	Divisional Manager	James Paget University Hospital NHSFT
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Andrew Palmer	Information Services	James Paget University Hospital NHSFT
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Appendix 5

OPCS codes:

W40 - Total prosthetic replacement of knee joint using cement.
W41 - Total replacement of knee joint not using cement.
W42 - Other total replacement of knee joint.
W37 - Total prosthetic replacement of hip joint using cement.
W38 - Total replacement of hip joint not using cement.
W39- Other total replacement of hip joint.
W93 Hybrid prosthetic replacement of hip joint using cemented acetabular component
W94 Hybrid prosthetic replacement of hip joint using cemented femoral component
W95 Hybrid prosthetic replacement of hip joint using cement

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[1] NNUH, MRI Top Tips on Knowledge Anglia, http://nww.knowledgeanglia.nhs.uk/radiology/nnuh/index.htm?zoom_highlight=radiology+top+tips#musculoskeletal

[2] Clarke A et al 'Total hip replacement and surface replacement for the treatment of pain and disability resulting from end stage arthritis of the hip' *Review of technology appraisal guidance 2 and 44 Warwick Evidence, 2013*. http://www.nice.org.uk

[3] Jinks C, Jordan K, Croft P 'Measuring the population impact of knee pain and disability with the Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC)' *Pain* 2002 Nov;100(1-2):55-64

[4] Hunter DJ, Felson DT; 'Osteoarthritis' *BMJ.* 2006 Mar 18;332(7542):639-42

[5] www.arthritisresearchuk.org

[6] www.patient.co.uk

[7] www.boa.ac.uk

[8] NICE Technology appraisal TA304 "Total hip replacement and resurfacing arthroplasty for end-stage arthritis of the hip (review of technology appraisal guidance 2 and 44)" February 2014. *http://www.nice.org.uk/guidance/TA304*

[9] National Joint Registry http://www.njrcentre.org.uk/njrcentre/Default.aspx

[10] NICE Guidance. CG177. Osteoarthritis. Feb 2014.

[11] Obesity: guidance on the prevention, identification, assessment and management of overweight and obesity in adults and children. NICE clinical guideline 43 (2006).

[12] Vincent HK, Weng JP, Vincent KR. Effect of obesity on inpatient rehabilitation outcomes after total hip arthroplasty. Obesity (Silver Spring) 2007;15:522–30.

[13] A Workgroup of the American Association of Hip and Knee Surgeons (AAHKS) Evidence Based Committee, Obesity and Total Joint Arthroplasty A Literature Based Review, The Journal of Arthroplasty 28 (2013) 714–721.

[14] **NICE clinical guideline 189,** Obesity: identification, assessment and management of overweight and obesity in children, young people and adults Issued: November 2014 accessed at: http://www.nice.org.uk/guidance/cg189/resources/guidance-obesity-identification-assessment-and-management-of-overweight-and-obesity-in-children-young-people-and-adults-pdf
http://www.nice.org.uk/guidance/cg43/resources/guidance-obesity-pdf

[15] Moller A et al 'Effect of preoperative smoking intervention on postoperative complications: an RCT' *Lancet* vol 359, issue 9301, p 114-7 2002

[16] NICE Guidance. CG177. Osteoarthritis. Feb 2014.