2017

Commissioning Guide:

Pain Arising from the Hip In Adults

Sponsoring Organisation: British Hip Society (BSH), British Orthopaedic Association (BOA), Royal College of Surgeons of England (RCSEng)

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NICE has accredited the process used by Surgical Speciality Associations and Royal College of Surgeons to produce its Commissioning guidance. Accreditation is valid for 5 years from February 2013. More information on accreditation can be viewed at www.nice.org.uk/accreditation

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The Royal College of Surgeons of England, 35-43 Lincoln's Inn Fields, London WC2A 3PE

Introduction

This guidance addresses the management of painful hip disorders in adults. The commonest cause is osteoarthritis (OA).

Around 450 patients per 100,000 population will present to primary care with hip pain each year (1). Of these, 25% will improve within three months and 35% at twelve months (2); this improvement is sustained (3).

Pain felt around and attributed to the hip can also be due to spinal or abdominal disorders which should be excluded. Hip pathology may cause pain felt only at the knee. In the young adult, Femoroacetabular Impingement Syndrome (FAI), labral tears and hip dysplasia may cause hip pain, usually felt in the groin.

Tendinopathies affecting the adductors, psoas, hamstrings, or most commonly the abductors can occur. Trochanteric pain with local tenderness, is often due to trochanteric bursitis or abductor tendinopathy. Isolated trochanteric pain due to bursitis or tendinopathy settles in 64% after one year and 71% after five years (4).

Degenerative hip disease is the most common diagnosis in the adult and is the long-term consequence of predisposing conditions. Inflammatory joint disease of the hip may develop at any age, alone or with other joint involvement and may be due to auto-immune disease.

Osteoarthritis of the hip describes a clinical syndrome of joint pain accompanied by varying degrees of functional limitation and reduced quality of life (5). Osteoarthritis may not be progressive and most patients will not need surgery, with their symptoms adequately controlled by non-surgical measures. Symptoms progress in 15% of patients within 3 years and 28% within 6 years (4).

The current hip scoring tools are not appropriate for use in prioritisation or deciding on referral thresholds, because they are poor predictors of surgical outcomes (6), (7), (8), (9). Where scoring tools are used, thresholds should not be used as a barrier to referral, or in isolation; trends in a patient's scores can be used, with caution, to inform shared decision making[1].

Total Hip Replacement (THR) is cost effective, with a cost per quality adjusted-life year of £1372[2], and returning 90% of patients to their previous job, and enabling the elderly to keep independent.

There is a 3.8 fold variation in the rate of primary hip replacement procedures per 100,000 population between CCG populations (10).

The outcome of THR is better when well-tried implants are used (e.g. ODEP 10A rated (11)), particularly when performed by experienced surgeons (for example those doing more than 70 per annum (12)).

Complex cases and younger patients with arthritis due to childhood hip disorders should be performed in centres performing high volumes of these cases.

This pathway is a guide which can be modified according to the needs of the local health economy.

[1] http://casereports.bmj.com/content/2016/bcr-2015-214153.abstract?sid=e1b32b09-0919-4cae-84ad-6aba6ad2152e
[2] Jenkins et al 2013 : https://www.ncbi.nlm.nih.gov/pubmed/23307684

1 High Value Care Pathway for Pain Arising from the Hip in Adults

1.1 Primary Care

Assessment:

- History - pain in the groin, medial thigh and greater trochanter radiating to thigh and knee at rest and/or after activity or isolated knee pain condition having an impact on occupation, daily activity and sports (e.g. decrease in walking distance, disability in negotiating stairs and performing pedicure).
- Examination - examine the hip for tenderness and irritability on movement.
- Investigations - a plain A-P radiograph of the pelvis may be requested to confirm the diagnosis after history and examination.
- No further imaging (e.g. MRI or bone scan) is appropriate before referral.

Emergency referral to Orthopaedics via A&E:

- Hip pain associated with systemic symptoms, signs of infection, known primary malignancy, sudden inability to bear any weight, history of a fall (13).

Urgent referral to secondary care:

- Severe pain unresponsive to analgesia and persistent loss of function.

Management - offer to all people:

Shared decision making must take place with respect to all management.

- Mild symptoms:
  - Offer verbal and written information about condition to aid shared decision making in a way that is sensitive to health literacy issues (9).[3]
  - Offer information to achieve weight loss if people are overweight or obese as a core treatment (9).
  - Where applicable, at the earliest possible stage in the patient pathway, smoking cessation should be offered within a shared decision making framework
  - Advise local muscle strengthening and general aerobic exercise as a core treatment (9), (14), (15).
  - Use shared decision making tools.
  - Suggest oral simple analgesia and anti-inflammatory medication, as per locally developed prescribing guidelines (16), (17).
  - Assess need for aids and devices (refer to occupational therapy or physiotherapy) including instruction in using a walking aid.
  - Prescribe supervised and evidence based physical therapies after assessment by an appropriate HCPC registered practitioner (18), (19), (20), (21), (22).
  - Holistic programmes such as “ESCAPE PAIN”, which involve pain education, have a growing evidence base and can be beneficial.[4]

[3] Up to 61% of working adults do not understand health information, such as patient information leaflets (Rowlands et al). Consider using information produced by Information Standard Members and methods to address limited health literacy described in the AHRQ Health Literacy Universal Precautions Toolkit)

[4] Hurley, M. V., Walsh, N. E., Mitchell, H., Nicholas, J., & Patel, A. (2012). Long-term outcomes and costs of an integrated rehabilitation program for chronic knee pain: A pragmatic, cluster randomized, controlled trial. Arthitis Care and Research,

- Moderate symptoms:
  - Add NSAIDs or stronger analgesics, as per locally developed prescribing guidelines (23).
  - In very elderly patients and those assessed to be unsuitable for surgery consider referral for image guided intra-articular steroids - beneficial for between 3 weeks and 3 months.

- Refer to intermediate or secondary care: (9)
  - Young adults (<40) with persistent hip pain which affects activities of daily living, work or leisure and which has not responded to a 3 month course of physiotherapy.
  - All adults with painful irritable and stiff hip interfering with sleep, activities of daily living, work or leisure not controlled with measures above.
  - Referral should be independent of the radiographic grade of arthritis.
  - Refer patients before there is prolonged and established functional limitation and severe pain (9).
  - Age, gender, smoking, obesity and co-morbidity should not be barriers to referral. Any impact these may have on surgical outcomes should be explained to the patient, through a shared decision making process, to enable them to make a joint decision on their care with the clinician.
  - Where scoring tools are used, thresholds should not be used as a barrier to referral, or in isolation.
  - Ensure that patients with significant co-morbidities (systemic or local) have appropriate investigations and treatment to optimise their condition before referral.
  - Patients who are considered not suitable for surgery by one of the surgical team should be referred for a comprehensive care package.

1.2 Intermediate Care[5]

Intermediate care should form part of an integrated care programme with close links to primary and secondary care using protocols agreed with secondary care, and should continue the shared decision making process began in primary care.

Assessment:

- Assessment as above.
- Re-assess for urgent referral to secondary care.

Management:

- Non-operative interventions if not already offered:
  - Use shared decision making and define treatment goals, taking into account personal circumstances e.g. occupation, level of activity/sports.

- Provision of appropriate aids if not already used (6).

64(2), 238-247. Hurley, M., Walsh, N., & Jessep, S. (2013). Self-management for chronic knee pain: using group physiotherapy to teach exercises and coping strategies. http://www.evidence.nhs.uk/qipp. National Institute for Health and Clinical Excellence, Quality Innovation Productivity and Prevention Collection.

[5] Those services that do not require the resources of a general hospital, but are beyond the scope of the traditional primary care team (René JFM, Marcel GMOR, Stuart GP, et al. What is intermediate care? BMJ 2004; 329(7462):360-61).

- Specific goals based supervised and evidence based physiotherapy programme (for up to 12 weeks if this has not already been carried out in primary care) (24).

Referral to secondary care:

- If persistent pain and disability has not responded to up to 12 weeks of evidence based non-surgical treatments (24), (25), (26), this time to include any manual therapy (including physiotherapy) received in primary care.

1.3 Secondary Care

Assessment:

- History and examination
- Plain radiographs
- Further imaging if indicated

Management:

The decision to offer patients surgery is based on their diagnosis, symptom pattern, with the type of surgery determined by age (27), diagnosed pathology and the patient's preference.

Shared decision making must take place with respect to all management. This includes presenting the patient with information on all treatment options, and a clear description of the risks and benefits of each treatment, including surgery where indicated[6]. Emphasis should be on dialogue enabling patients' to realise they have a choice, understand the options available to them, and make a decision as to which option to choose[7].

Patient Decision Aids can be used when considering management options for Hip Osteoarthritis.

Where surgery is unlikely to be indicated, e.g. in cases of tendinopathy, referral for appropriate rehabilitation (which may be deliverable within the community) guided injection or extra corporeal shock wave therapy are options for treatment. If the results of investigation indicate alternative sources of pain to the hip e.g. inflammatory conditions or referral from the viscera or spine, referral to other secondary care specialities should be considered.

Patients should be informed that the decision to have surgery can be a dynamic process and a decision to not undergo surgery does not exclude them from having surgery at a future time point.

Hip preserving operations

Hip preserving operations include surgery for impingement and osteotomy for malalignment where there is the potential for developing early osteoarthritis. This surgery is best performed in centres undertaking high volumes of surgery on young adults' hips and by those surgeons that submit their data to the established outcome registers.

Total hip replacement

After appropriate diagnosis, consider **total hip replacement** when (28):

- Pain is inadequately controlled by medication.
- There is restriction of function.

[6] It is important to be sensitive to health literacy concerns. Up to 61% of working adults do not understand health information, such as patient information leaflets (Rowlands et al). Consider using information produced by Information Standard Members and methods to address limited health literacy described in the AHRQ Health Literacy Universal Precautions Toolkit)

[7] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3445676/

- The quality of life is significantly compromised.
- There is narrowing of the joint space on radiograph.

Having established the need for surgical intervention the operation should be performed as early as possible (29).

There are important choices to be made on technique, implant and bearing surface, and these should be made on a case-by-case basis by the surgeon taking into account the most recent evidence from the NJR.[8] Hip resurfacing may be appropriate in young active males with suitable anatomy (30), (31).Enhanced Recovery protocols should be followed in the perioperative period including an individual needs based assessment prior to discharge. Service managers should ensure that there are support services to allow enhanced recovery. It should be noted that regional anaesthesia has the potential to enhance the rate of recovery.

The need for a package of care, including the use of support services, must be assessed pre-operatively to avoid delayed discharge.

The orthogeriatrician can help manage very elderly patients, especially those with co-morbidity.

Follow up visits:

- Patients over 75 years at primary THR with ODEP 10A rated implants need not be routinely reviewed after successful recovery from the procedure has been documented.
- ODEP 10A rated implants should be followed up in the first year, once at seven years and three yearly thereafter in asymptomatic patients. Telephone or web-based PROMS may be useful to monitor outcome.
- Novel or modified implants (32) should be introduced through Beyond Compliance process, which requires surgeons to enter data from more frequent follow ups - usually annually for the first five years, two yearly to ten and three yearly thereafter.
- Routine follow up in General Practice is not advised (33); where complications are identified in General Practice, and where possible, principles of continuity of care should be applied, enabling referral back to the original surgical team.
- Virtual format of follow ups may be possible with sufficient IT and radiological support[9]
- Metal on Metal bearing hips should be followed up in accordance with existing advice from the MHRA. This is supported by the BHS and the BOA.
- Post-operative analgesia, beyond discharge, requires timely review.

Surgery for Femoroacetabular Impingement Syndrome (FAI):
Consider where there is diagnosis of FAI and failure of non-operative management (34), (35). These operations should be carried out by surgeons with a declared specialist interest, and expertise, in young adult hip problems who should contribute data to the Non Arthroplasty Hip Register

Femoral/pelvic osteotomy may be considered in (36):

[8] Ceramic bearings have certain theoretical advantages in terms of wear resistance and may be suitable for younger and more active patients. There may also be a place for ceramic femoral heads if larger diameter heads are used to minimise dislocation risk. This may protect the trunnion from potential corrosion risks, regardless of the counter face bearing. However Metal on polyethylene remains a very effective bearing and remains the most popular choice. Both cemented and uncemented fixation show excellent efficacy. Currently uncemented acetabular components are required for ceramic on ceramic bearings.

[9] http://www.health.org.uk/programmes/shine-2014/projects/virtual-follow-hip-and-knee-replacement-patients

- Patients aged <50 years with persistent hip symptoms with abnormalities of femoral and/or acetabular anatomy, who have failed to respond adequately to conservative treatment.
- These operations should be carried out by surgeons with a declared specialist interest, and expertise, in young adult hip problems who should contribute data to the Non Arthroplasty Hip Register. (http://www.britishhipsociety.com/NAHR).
- An arthritic hip with severe acetabular bone loss, abnormal anatomy (such that non-standard implants may be necessary), prior fusion and cases secondary to infection should be considered specialised surgery and commissioned by NHS England.

Patients with a history of hip surgery:
Patients who have undergone previous hip surgery, other than isolated hip arthroscopy, should normally be treated by surgeons with a recorded interest in complex and revision hip arthroplasty working in higher volume centres.

2 Procedures Explorer for Pain Arising from the Hip in Adults

Users can access further procedure information based on the data available in the quality dashboard to see how individual providers are performing against the indicators. This will enable CCGs to start a conversation with providers who appear to be 'outliers' from the indicators of quality that have been selected.

The Procedures Explorer Tool is available via the Royal College of Surgeons website.

Procedure	OPCS4 codes	Exclusions
Primary total hip replacement with or without cement	W3712 W371 , W379 , W381 , W389, W391, W399, W931, W939, W941, W949, W951, W959	
Total prosthetic replacement of the hip, with or without cement, bilateral	All above codes with Z941 As in primary hip replacement with code Z941 for bilateral operations	
Complex primary total hip replacement (including bone grafting or femoral osteotomy)	W3713	
Hip resurfacing arthroplasty	W3715 W581 with Z843	
Hip resurfacing arthroplasty bilateral	W3719 W581 with Z843 and Z941	

3 Quality Dashboard for Pain Arising from the Hip in Adults

The quality dashboard provides an overview of activity commissioned by CCGs from the relevant pathways, and indicators of the quality of care provided by surgical units.

The quality dashboard is available via the Royal College of Surgeons website.

For current dashboard indicators (see appendix 1)

Measure	Definition	Data Source*
1. Standardised activity rate	Activity rate standardised for age and sex	HES/Quality Dashboard appendix 1
2. Average length of stay	Total spell duration/total number of patients discharged	HES/Quality Dashboard appendix 1
3. Day case rate	Number of patients admitted and discharged on the same day/total number of patients discharged	HES/Quality Dashboard appendix 1
4. Short stay rate	Number of patients admitted and discharged within 48 hours /total number of patients discharged	HES/Quality Dashboard appendix 1
5. 7/30 day readmission rate	Number of patients readmitted as an emergency within 7/30 days of discharge /total number of patients discharged Excludes Cancer, dementia, mental health	HES/Quality Dashboard appendix 1
6. Reoperations within 30 days/1 year	Number of patients re-operated during an emergency readmission within 30 days/ 1 year /total number of patients discharged	HES/Quality Dashboard appendix 1
7. In hospital mortality rate	Number of patients who die while in hospital /total number of patients discharged	HES/Quality Dashboard appendix 1

* includes data from HES, National Clinical Audits, Registries

Areas for development of dashboard in future:

Measure	Evidence Base	Data Source*
PROM (OHS) change at 6 months post-surgery for total hip Replacement (THR) (and increased time periods as they become available)	National data set	The Health and Social Care Information Centre
Enhanced recovery programme for THR	HES data set	HES
Rate of blood transfusion in THR	BOA Guidance on Blood-transfusion in orthopaedic surgery	Trusts
Infection rate (THR)	HES data set	HES
Risk assessment for thromboprophylaxis with THR	NICE	Trusts
Implant dislocation rates		HES/NJR
Peri-prosthetic fractures (37)	HES	HES/NJR
Rate of Revision		NJR
Proportion achieving Best Practice Tariff (2014)[10]		
Completion of minimum dataset for non arthroplasty surgical operations in Non Arthroplasty Hip Register (NAHR)	NAHR	NAHR, HES

* includes data from HES, National Clinical Audits, Registries

[10] The proposed changes to the best practice tariff for 2014/15 were not confirmed at the time of finalising the documents.

4 Levers for Implementation

4.1 Audit and Peer Review Measures

Levers for implementation are tools for commissioners and providers to aid implementation of high value care pathways.

Measure	Standard	Data source
Adherence to NICE Guidance for referral	Percentage of people referred to secondary care for whom core treatments options attempted	Local use of referral checklist/tool Audit
Change in PROM score for THR	A centre should demonstrate improved PROM outcome	National PROMs data
Enhanced Recovery (ER)	Number of patients cared for along an Enhanced Recovery Care Pathway	Performance on National ER indicators
Use of British Hip Society (BHS) follow up protocol	% using BHS Follow up protocol	Provider
Availability of MARS MRI imaging for metal-on-metal arthroplasty and specialist musculoskeletal radiologists	Statement confirming the provision	Provider

4.2 Quality Specification/CQUIN (Commissioning for Quality and Innovation)

Measure	Description	Data specification (if required)
Preoperative assessment clinic.	Reduces late cancellation	Provider
24 hour telephone availability of a member of the arthroplasty team	Avoids inappropriate treatment by community services, reduced late cancellation	% > 24 hour delay in treatment of complication
Routine follow up by Arthroplasty Care Practitioners and/or using telephone PROMs and community radiography to minimize trips to hospital	Improves follow up of patients at risk, frees time in outpatient clinics to assess new patients Makes follow up less of a burden to patients	% patients >75 years <65 years followed up in hospital clinic Alternative clinics
Target length of stay (LoS) should be 3-4 days	Encourages early supported discharge	% patients with LoS > 4 days
Proportion achieving Best Practice Tariff [2014]		
Percentage of patients entered onto NJR	Improves data quality	>90%
Percentage of patients undergoing open or arthroscopic non-arthroplasty hip surgery entered onto Non Arthroplasty Hip Register (NAHR)	Improves data quality	>90%

5 Directory

5.1 Patient Information for Pain Arising from the Hip in Adults

Name	Publisher	Link
Hip replacement	NHS Choices	http://www.nhs.uk/conditions/Hip-replacement/Pages/Introduction.aspx
Hip joint replacements	EMIS	www.patient.co.uk
NHS Evidence	NHS	www.evidence.nhs.uk/
NICE OA Guideline		https://www.nice.org.uk/Guidance/CG177

5.2 Clinician Information for Pain Arising from the Hip in Adults

Name	Publisher	Link
Hip disease replacement prostheses	NICE	www.nice.org.uk
Hip osteoarthritis	NHS Clinical Knowledge Summaries	www.cks.nhs.uk
Hip pain	Map of Medicine	TBC

6 Benefits and Risks

Benefits and risks of commissioning the pathway are described below:

Consideration	Benefit	Risk
Patient outcome	Ensure prompt access to effective treatments so that patients can regain their independence and return to work	Prolonged treatment with patients who are disabled and dependent, unable to work if of working age
Patient safety	Reduce chance of missing serious hip pathology or prolonging disability	
Patient experience	Improve access to patient information, support groups	Patients not taking charge of their care, dependence on Primary and Secondary care
Equity of access	Improve access to effective procedures	With-holding of access for financial reasons alone
	Reduce unnecessary referral and intervention	Resource required to establish community specialist provider

7 Further Information

7.1 Research Recommendations

- Evaluation of symptoms scoring systems to guide referral and management (NIHR HTA call).
- Effectiveness of non-surgical treatments.
- Effectiveness of assessment and management in primary care.
- Effectiveness of non-replacement surgery for the arthritic hip.

7.2 Other Recommendations

- Improved patient information
- Clinician education
- Mandatory data collection for all relevant registries
- Separation of co-morbidity from complication from IC CC list
- Development of a relevant and comprehensible undergraduate musculoskeletal curriculum that prepares students for primary care

7.3 Evidence Base

1. How do general practitioners manage hip problems in adults? Bierma-Zeinstra SM, Lipschart S, Njoo KH, Bernsen R, Verhaar J, Prins A, Bohnen AM. 3, 2000, Scandinavian Journal of Primary Health Care, Vol. 18, pp. 159-64.

2. The course and prognosis of hip complaints in general practice. van der Waal Ph JM, Bot SDM, Terwee CB, van der Windt Ph DAWM, Bouter LM, Dekker J. 3, 2006, Annals of Behavioral Medicine, Vol. 31, pp. 297-308.

3. Factors associated with change in pain and disability over time: a community-based prospective observational study of hip and knee osteoarthritis. Peters TJ, Sanders C, Dieppe P, Donovan J. 512 , 2005, The British journal of general practice, 205., Vol. 55, pp. 205-211.

4. Prognosis of hip pain in general practice: a prospective followup study. Lievense AM, Koes BW, Verhaar JAN, Bohnen AM, Bierma-Zeinstra S. 8 , 2007 , Arthritis Care and Research, Vol. 57, pp. 1368-74.

5. Health impact of pain in the hip region with and without radiographic evidence of osteoarthritis: a study of new attenders to primary care. Birrell F, Croft P, Cooper C, Hosie G, Macfarlane G, Silman A. 11, Annals of the Rheumatic Diseases 2000, Vol. 59, pp. 857-63.

6. Does the priority scoring system for joint replacement really identify those in most need. Coleman B, McChesney S, Twaddle B. 2005, NZ Med J , pp. 118-1215.

7. Variations in the pre-operative status of patients coming to primary hip replacement for osteoarthritis in European orthopaedic centres. Dieppe P, Judge A, Williams S, Ikwueke I, Guenther K-P, Floeren M, Huber J, Ingvarsson T, Learmonth I, Lohmander LS. 1, 2009, BMC musculoskeletal disorders , Vol. 10, p. 19.

8. Assessing patients for joint replacement Can pre-operative Oxford hip and knee scores be used to predict patient satisfaction following joint replacement surgery and to guide patient selection? Judge A, Arden NK, Price A, Glyn-Jones S, Beard D, Carr AJ, Dawson J, Fitzpatrick R, Field RE. 12, 2011, Journal of Bone & Joint Surgery, British Volume, Vol. 93, pp. 1660-4.

9. NICE. . CG177: Osteoarthritis-The care and management of osteoarthritis in adults. London: : National Institute for Health and Care Excellence (NICE), 2014.

10. RightCare . The NHS Atlas of Variation in Healthcare : Reducing unwarranted variation to increase value and improve quality. London : RightCare\Public Health England\NHS England , 2015.

11. ODEP Orthopaedic Data Evaluation Panel. ODEP criteria for categorising products in relation to NICE's benchmarks - version 4. London : NHS Supply Chain, 2005.

12. Australian Orthopaedic Association National Joint Replacement Registry. Hip and Knee Arthroplasty. Australian Orthopaedic Association National Joint Replacement Registry: Annual Report. Adelaide : s.n., 2012.

13. NICE. CG124: Hip fracture: The management of hip fracture in adults. London : National Institute for Health and Care Excellence (NICE), 2011.

14. Exercise therapy may postpone total hip replacement surgery in patients with hip osteoarthritis: a long-term follow-up of a randomised trial. Svege, I., et al. 1, Annals of the Rheumatic Diseases, Vol. 74 , pp. 164-169.

15. Effectiveness of exercise therapy added to general practitioner care in patients with hip osteoarthritis: A pragmatic randomized controlled trial. Teirlinck, C. H., et al. 1, (2016), Osteoarthritis and Cartilage, Vol. 24, pp. 82-90.

16. A phase 3 randomized controlled trial of lower-dose diclofenac capsules in patients with osteoarthritis pain: Impact on patient-reported outcomes. Strand, V., et al. Osteoarthritis and Cartilage , Vol. 22, pp. S392-S393.

17. A randomized, double-blind, placebo-controlled 12 week trial of acetaminophen extended release for the treatment of signs and symptoms of osteoarthritis. Prior, M. J., et al. [ed.] 30. 11, (2014), Current Medical Research & Opinion, pp. 2377-2387.

18. Effect of physical therapy on pain and function in patients with hip osteoarthritis: a randomized clinical trial. Bennell, K. L., et al. (2014). 19, JAMA , Vol. 311, pp. 1987-1997.

19. Exercise therapy, manual therapy, or both, for management of osteoarthritis of the hip or knee: 2-year follow-up of a randomized clinical trial. Abbott, J. H., et al. (2014). Osteoarthritis and Cartilage, Vol. 22, p. S51.

20. Exercise therapy and/or manual therapy for hip or knee osteoarthritis: 2-year follow-up of a randomized controlled trial. Abbott, J. H., et al. (2014). Arthritis and Rheumatology , Vol. 66, pp. S1266-S1267.

21. Patient education with or without manual therapy compared to a control group in patients with osteoarthritis

of the hip. A proof-of-principle three-arm parallel group randomized clinical trial. Poulsen, E., et al. 10, 2013, Osteoarthritis & Cartilage, Vol. 21, pp. 1494-1503.

22. Manual therapy, exercise therapy, or both, in addition to usual care, for osteoarthritis of the hip or knee. 2: economic evaluation alongside a randomized controlled trial. Pinto, D., et al. (2013). 10, Osteoarthritis & Cartilage, Vol. 21, pp. 1504-1513.

23. "Transdermal buprenorphine plus oral paracetamol vs an oral codeine-paracetamol combination for osteoarthritis of hip and/or knee: a randomised trial.". Conaghan, P. G., et al. (2011). 8, Osteoarthritis & Cartilage , Vol. 19, pp. 930-938.

24. OARSI recommendations for the management of hip and knee osteoarthritis, Part II: OARSI evidence-based, expert consensus guidelines. Zhang W, Moskowitz RW, Nuki G, Abramson S, Altman RD, Arden N, Bierma-Zeinstra S, Brandt KD, Croft P, Doherty M, Dougados M, Hochberg M, Hunter DJ, Kwoh K, Lohmander LS, Tugwell P. 2, 2008, Osteoarthritis and Cartilage, Vol. 16, pp. 137-62.

25. OARSI recommendations for the management of hip and knee osteoarthritis, part I: critical appraisal of existing treatment guidelines and systematic review of current research evidence. Zhang W, Moskowitz RW, Nuki G, Abramson S, Altman RD, Arden N, Bierma-Zeinstra S, Brandt KD, Croft P, Doherty M, Dougados M, Hochberg M, Hunter DJ, Kwoh K, Lohmander LS, Tugwell P. 9, 2007, Osteoarthritis and Cartilage , Vol. 15, pp. 981-1000.

26. OARSI recommendations for the management of hip and knee osteoarthritis: part III: Changes in evidence following systematic cumulative update of research published through January 2009. Zhang W, Nuki G, Moskowitz RW, Abramson S, Altman RD, Arden NK, Bierma-Zeinstra S, Brandt KD, Croft P, Doherty M. 4, 2010, Osteoarthritis and Cartilage, Vol. 18, pp. 476-99.

27. Age at hip or knee joint replacement surgery predicts likelihood of revision surgery. Wainwright C, Theis JC, Garneti N, Melloh M. 10, 2011, Journal of Bone & Joint Surgery - British Volume, Vol. 93, pp. 1411-5.

28. Indications for total hip replacement: comparison of assessments of orthopaedic surgeons and referring physicians. Dreinhöfer KE, Dieppe P, Stürmer T, Gröber-Grätz D, Flören M, Günther KP, Puhl W, Brenner H. 10, 2006, Annals of the Rheumatic Diseases, Vol. 65, pp. 1346-50.

29. Does waiting for total hip replacement matter? Prospective cohort study. Hajat S, Fitzpatrick R, Morris R, Reeves B, Rigge M, Williams O, Murray D, Gregg P. 1, 2002, Journal of Health Services Research and Policy, Vol. 7, pp. 19-25.

30. National Joint Registry . 10th Annual Report of the UK NJR. London : National Joint Registry for England, Wales and Northern Ireland, 2013.

31. Indications and results of hip resurfacing. McMinn DJW, Daniel J, Ziaee H, Pradhan C. International Orthopaedics SICOT 2010.

32. A., Miller. Regulation of Medical Implants in the EU and UK: Fifth Report of Session 2012-13[Vol. 1]: Report, Together with Formal Minutes, Oral and Written Evidence. s.l. : TSO Shop, 2012.

33. Should follow-up of patients with arthroplasties be carried out by general practitioners? Haddad FS, Ashby E, Konangamparambath S. 9, 2007;, Journal of Bone & Joint Surgery, British Volume , Vol. 89, pp. 1133-4.

34. NICE. IPG408: Arthroscopic femoro–acetabular surgery for hip impingement syndrome.Vol. 408. London : National Institute for Health and Care Excellence , 2011.

35. NICE. IPG403: Open femoro–acetabular surgery for hip impingement syndrome Vol. 403. London : National Institute for Health and Care Excellence, 2011.

36. Medium-term outcome of periacetabular osteotomy and predictors of conversion to total hip replacement. Troelsen A, Elmengaard B, Søballe K. 9, 2009, The Journal of Bone & Joint Surgery, Vol. 91, pp. 2169-79.

37. National Joint Registry. 9th Annual Report of the UK NJR. London : National Joint Registry for England, Wales and Northern Ireland, 2012.

7.4 Guide Development Group for Pain Arising from the Hip in Adults

A commissioning guide development group was established to review and advise on the content of the commissioning guide, as part of the review process. This group met on a number of occasions via teleconference, with additional interaction taking place via email. Details of the Guideline Development Group involved in the original production of the guide is available on request.

Name	Job Title/Role	Affiliation
John Nolan (Chair)	BHS, Consultant Orthopaedic Surgeon	BHS, BOA
Donald McBride	Consultant Orthopaedic Surgeon	BOA Executive
Judith Fitch	Chair, BOA Patient Liaison Group	BOA PLG
Jim Rehill	General Practitioner	Sussex MSK Partnership
Paul Creamer	Consultant Rheumatologist	
Alison Smeatham	Extended Scope Practitioner (Physiotherapy)	
Margaret Hughes	Corresponding member, BOA Patient Liaison Group	
Steve Lloyd	Commissioner	Chair of Hardwick CCG

7.5 Funding Statement

The development of this commissioning guidance has been funded by the following sources:

- The Royal College of Surgeons of England (RCSEng) and the British Orthopaedic Association (BOA) provided staff to support the guideline development and performed the quality assurance.

7.6 Methods Statement

The development of this guidance has followed a defined, NICE Accredited process. This included a systematic literature review, public consultation and the development of a Guidance Development Group which included those involved in commissioning, delivering, supporting and receiving surgical care as well as those who had undergone treatment. An essential component of the process was to ensure that the guidance was subject to peer review by senior clinicians, commissioners and patient representatives.
Details are available at this site: http://www.rcseng.ac.uk/healthcare-bodies/nscc/commissioning-guides

7.7 Conflict of Interest Statement

Individuals involved in the development and formal peer review of commissioning guides are asked to complete a conflict of interest declaration. It is noted that declaring a conflict of interest does not imply that the individual has been influenced by his or her secondary interest, but this is intended to make interests (financial or otherwise) more transparent and to allow others to have knowledge of the interest. All records are kept on file, and are available on request.

Appendix 1: Dashboard

To support the commissioning guides the Quality Dashboards show information derived from Hospital Episode Statistics (HES) data. These dashboards show indicators for activity commissioned by CCGs across the relevant surgical pathways and provide an indication of the quality of care provided to patients.

The dashboards are supported by a metadata document to show how each indicator was derived.

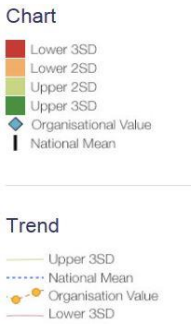
http://rcs.methods.co.uk/dashboards.html

Example CCG:

Orthopaedics-Painful Osteoarthritis of the Hip

Total Hip replacement (Unilateral)

Metric	Period	Value	Mean	Chart	Trend
Daycase Rate (%)	RY Q4 1213	0.00	0.15		
In Hospital Mortality Rate (per 1,000 discharges)	RY Q4 1213	0.00	0.73		
Age/Sex Standardised Activity (per 100,000 population)	RY Q4 1213	63.65	100.64		
Average Length of Stay (Days)	RY Q4 1213	4.11	4.96		
7 Day Readmission Rate (%)	RY Q4 1213	4.44	1.84		
30 Day Readmission Rate (%)	RY Q4 1213	7.78	5.17		
30 Day Reoperation Rate (%)	RY Q4 1213	3.33	3.73		



Hip resurfacing

Metric	Period	Value	Mean	Chart	Trend
Age/Sex Standardised Activity (per 100,000 population)	RY Q4 1213	0.84	3.02		
Average Length of Stay (Days)	RY Q4 1213	3.00	3.30	5.87	
7 Day Readmission Rate (%)	RY Q4 1213	0.00	0.22		
30 Day Readmission Rate (%)	RY Q4 1213	0.00	0.67		
30 Day Reoperation Rate (%)	RY Q4 1213	0.00	0.22		
Daycase Rate (%)	RY Q4 1213	0.00	0.67		
In Hospital Mortality Rate (per 1,000 discharges)	RY Q4 1213	0.00	0.00		

Total Hip replacement (Bilateral)

Metric	Period	Value	Mean	Chart	Trend
Age/Sex Standardised Activity (per 100,000 population)	RY Q4 1213	1.54	1.29		
Average Length of Stay (Days)	RY Q4 1213	12.50	8.39		
7 Day Readmission Rate (%)	RY Q4 1213	0.00	0.30		
30 Day Readmission Rate (%)	RY Q4 1213	0.00	0.90		
30 Day Reoperation Rate (%)	RY Q4 1213	0.00	0.30		
Daycase Rate (%)	RY Q4 1213	0.00	0.30		
In Hospital Mortality Rate (per 1,000 discharges)	RY Q4 1213	0.00	12.01		