er 2016

Dear Dr. Siemieniuk

Manuscript ID BMJ.2016.036168 entitled "Arthroscopic surgery for degenerative knee arthritis and meniscal tears: a clinical practice guideline"

Thank you for sending us your second Rapid Recommendations guideline. It has now been peer reviewed and the comments from two patient reviewers and two clinical reviewers are at the bottom of this email. I understand you are awaiting the decision on two research papers which were discussed at our manuscript meeting last week.

I would be grateful if you are able to revise the education piece in light of the comments from the reviewers of this paper and also in light of the relevant feedback from the research papers.

When you return the education piece, we might choose to send this to the peer reviewers again depending on how substantially different the article and infographic are following amendments and in light of the clinical peer reviewers' wish to see the piece in conjunction with the research papers.

Please do let me know if you have any queries regarding the above information and I look forward to seeing your revised article before we can make our final decision.

Yours sincerely,

Sophie

Dr Sophie Cook
Clinical reviews editor
scook@bmj.com

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Report from The BMJ's manuscript committee meeting

These comments are an attempt to summarise the discussions at the manuscript meeting. They are not an exact transcript.

Members of the committee were: xxx (chair), yyy (statistician), [and list other eds who took part]

Decision: Put points

Detailed comments from the meeting:

First, please revise your paper to respond to all of the comments by the reviewers. Their reports are available at the end of this letter, below.

Please also respond to these additional comments by the committee:

*
*
*
*
In your response please provide, point by point, your replies to the comments made by the reviewers and the editors, explaining how you have dealt with them in the paper.

** Comments from the external peer reviewers**

Reviewer: 1

Recommendation:

Comments:
It's an interesting and worthwhile study as there is a lot of conflicting guidance on the treatment of Osteoarthritis and joint damage within the medical community. I was diagnosed with knee osteoarthritis around five years ago and had arthroscopy with micro-fracture surgery to try and repair damage to the joint. I'm interested and supportive of the outcome statement in this paper which states that the researchers do not recommend this type of surgery for osteo-arthritis. I have been left with post operative pain many years after surgery and actually find that my Ossur unloader leg brace is more effective at reducing the pain and symptoms than surgical intervention.

Arthroscopic knee surgery obviously requires a significant amount of NHS resources when in fact this paper suggests that other treatments may be more cost effective and beneficial to the patient. I think that it's incredibly important that the correct guidance and treatment is adopted by the NHS and their is evidence from an earlier paper that weight loss and exercise may be an effective treatment. My only concern about this is that patients may expect surgery to provide better results than alternative therapies and may continue to opt for surgical intervention.

Patients have importantly identified that pain, knee function and quality of life are important outcomes for patients but I understand that these can be difficult to quantify. However the researchers have completed a systematic review to

identify how important these changes are to patients. I'm supportive of the statement that arthroscopy does not appear to be a beneficial treatment for knee athroscopy according to the evidence reviewed in this study as the experience of the patient panel involved in earlier research.

Additional Questions:
Please enter your name: Rebecca Harmston

Job Title: Lay Reviewer

Institution: None

Reimbursement for attending a symposium?: No

A fee for speaking?: No

A fee for organising education?: No

Funds for research?: No

Funds for a member of staff?: No

Fees for consulting?: No

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Reviewer: 2

Recommendation:

Comments:
This manuscript is interesting and illuminating. I suffer from knee osteoarthritis, with frequent mild to moderate pain and occasional slight knee locking. My symptoms are gradually worsening with age (I will be 60 shortly), so this paper is very relevant to me. I have wondered if knee arthroscopy would be beneficial but had not been aware of the large variation in guidance around the world. The advice here agrees deserves to be seen by a wide audience, in the hope that it will help patients and clinicians avoid opting for surgical procedures that will bring no lasting benefit, and which could cause harm.
This manuscript would be valuable reading for the general public and a general journal is absolutely the right place for it. Clinicians and policymakers would also find it useful.
The results answer the research question, are credible, the information is well presented and the conclusions are clear. Overall, I find this a clear, well written paper which will be of interest to a wide audience.

Additional Questions:
Please enter your name: Peter Green

Job Title: Public reviewer

Institution: Public reviewer

Reimbursement for attending a symposium?: No

A fee for speaking?: No

A fee for organising education?: No

Funds for research?: No

Funds for a member of staff?: No

Fees for consulting?: No

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Reviewer: 3

Recommendation:

Comments:
Comments on the clinical practice guideline with respect to arthroscopic surgery for degenerative knee disease:

Overall this guideline provides an insightful overview of evidence and considerations leading to the recommendation against arthroscopic surgery in patients with degenerative knee disease.
However, I have some comments:
1) Arthroscopic surgery in osteoarthritis patients have been discouraged in many guidelines for several years but often with the exception for people with a locked knee (or mechanical symptoms). In the box with "what is degenerative knee disease" the symptom locked knee is included, while later on at page 6 and page 9 it is mentioned that the evidence might not apply to patients with a locked knee, and that RCTs on arthroscopic surgery for people with a locked knee are needed. (Because such patients were excluded from the RCTs so far). In my opinion this is confusing; either the symptom locked knee should not be in the box, or in the main recommendation it should be clearly stated that this recommendation is unsure for people with a locked knee.
2) It is not clear to me how the authors decided that the evidence applies to for example patients with and without evidence of radiographic OA. Was this based on similar effect sizes in RCTs in which > 50% of the included patients radiographic OA and in RCTs with < 50% patients with ROA? How robust are such statements?
3) I had no access to the co-submitted systematic reviews. For this reason some essential information from these reviews should be stated in this short recommendation as well; for instance the MID for the different outcome measures (maybe in the PICO table?).
4) I could not figure out how the authors managed to get data on the percentage of people that achieved a change higher than the MID. Was this already reported in these studies, or did they use individual patient data of the trials?
5) I assume that the readers will not understand what the authors mean with MID units in the PICO table; the scale of these outcomes and what it means is not mentioned.

Additional Questions:
Please enter your name: Sita Bierma-Zeinstra

Job Title: Professor

Institution: Erasmus MC - University Medical Center Rotterdam

Reimbursement for attending a symposium?: No

A fee for speaking?: No

A fee for organising education?: No

Funds for research?: Yes

Funds for a member of staff?: No

Fees for consulting?: No

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Reviewer: 4

Recommendation:

Comments:
This is a timely review of the evidence for the use of arthroscopy in knees with degenerative changes. The authors reach very firm conclusions based on the evidence of several RCTs on the subject. This kind of 'bite-sized' summary of the evidence is becoming more common and has inherent limitations in terms of a difficulty in communicating nuance in the evidence available. However, this is something the BMJ have been doing for some time and this is a good topic to do this for. As such, I would recommend publication but there are some issues that need addressing.

Multiple references are made to two linked systematic reviews. I do not have access to these and this makes it rather difficult to determine whether the authors are making recommendations which are based on the evidence available. I have looked at around 12 papers which I consider relevant to the issue including the Kise paper and the RCTs that went into the Thorlund systematic review but the task of reviewing would be made significantly easier if we had access to the other systematic reviews. In any case, I think it would be helpful for readers if the included primary literature was referenced in this rapid review. There are clearly other studies that are included because the evidence that I have seen does not support the assertion that "all relevant patient groups were represented in the randomised controlled trials and

that the recommendation applies to all or almost all patients with degenerative knee disease - notably those with meniscal tears, no or minimal radiographic evidence of osteoarthritis, and those with sudden symptom onset.".

This latter statement is probably the most striking and controversial part of this review and several of the points below relate to this – I think that the evidence for this unanimity of recommendation in such a heterogenous group of patients should be spelled out in more detail. One assumes that these derive from subgroup analyses within the RCTs available and the strength or otherwise of their findings should be made explicit - do these represent strong evidence of no benefit (as is the case in arthroscopy for severe OA) or simply the absence of evidence of benefit?

It is uncontroversial to say that we should not be doing arthroscopies on patients with significant OA and a small meniscal tear. What surgeons are finding it harder to stop doing is to operate on subgroups of patients who we might consider to benefit from it (as mentioned in the introduction, there are a number of these theoretical groups). I think that blaming this at least partly on financial incentives (which the authors do in the introduction) is a bit unfair and simplistic (particularly when their graph shows a similar rise in arthroscopy in the UK – where no such incentives exist – as seen in other systems) – the issue is that we see patients in clinic who seem to have benefited from this intervention. Whilst this may all be a placebo effect, it remains possible that there are subgroups of patients (perhaps with more subtle demarcations than included in subgroup analyses in current literature) who could benefit. An acknowledgement of this uncertainty would perhaps go towards explaining the fact that arthroscopy, although less common than before, is still widely used.

Problems
1. The definition of degenerative knee disease is not made clear. The box entitled 'what is degenerative knee disease' tells us that it is an inclusive term, perhaps synonymous with OA. They then say they include patients with degenerative joint disease and a set of other criteria. From the box, the patient with degenerative knee disease can be a 19 year old with no radiographic arthritis, a meniscal tear, with an acute onset of a locked knee – this patient would certainly benefit from surgery. Therefore the actual definition of degenerative knee disease is important but unstated. Most studies appear to make the diagnosis on the basis of symptomatic criteria, the presence of OA on MRI or the fact that symptoms are atraumatic. Perhaps this box could be amended to make this clear.

2. Likewise, in the recommendation itself, the line about 'all relevant patient groups' being included must make it clearer that these were atraumatic tears (if of course they were). This kind of article has to be crystal clear as they are designed to be read without reference to the primary literature – there is already confusion in the media as to the usefulness of meniscectomy in general and it must be made clear that there are groups of patients (ie young patients with traumatic tears) for whom arthroscopy is helpful.

3. In infographic 2 we could do with more information in the inclusion and exclusion criteria together with a measure of spread on the age and BMI means

4. "how patients were involved" – do you think it would be helpful to include some demographic information on the patients who were involved? As this study encompasses a hugely diverse group of patients it may be helpful to know whose values were being used.

5. Minor point but page 29 "management options" – high tibial osteotomy is controversial in those with "severe osteoarthritis" (which I would take to mean bone on bone). This group is much more likely to receive unicompartmental knee replacement which should also be mentioned here. Likewise in page 5 "total knee replacement is the only definitive therapy" – really should read "total or partial knee replacement" as 8% of people in the UK receive UKR as the definitive treatment for their OA.

6. Pp31 (page 7 of the longer rapid rec) to 35 (11) – this table is clearly very important in understanding the broad recommendation given in what I assume will be the published article (ie the first few pages of the reviewed pdf). This table should have details of the subgroup analyses – patients with meniscal tears but no radiographic evidence of osteoarthritis, for instance.

All in all this is an impressive bit of work and an innovative way of conveying evolving evidence. Further clarity is important as to the population being considered and the strength of the evidence in subgroups but ultimately I think this should be publshable in the BMJ.

Additional Questions:
Please enter your name: Alex Liddle

Job Title: NIHR Clinical Lecturer

Institution: University College London

Reimbursement for attending a symposium?: No

A fee for speaking?: No

A fee for organising education?: No

Funds for research?: Yes

Funds for a member of staff?: No

Fees for consulting?: No

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a. Title: this should include the study design eg "systematic review and meta-analysis."

b. Abstract: Please include a structured abstract with key summary statistics, as explained below (also see http://resources.bmj.com/bmj/authors/types-of-article/research). For every clinical trial - and for any other registered study- the last line of the abstract must list the study registration number and the name of the register.

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d. Methods: For an intervention study the manuscript should include enough information about the intervention(s) and comparator(s) (even if this was usual care) for reviewers and readers to understand fully what happened in the study. To enable readers to replicate your work or implement the interventions in their own practice please also provide (uploaded as one or more supplemental files, including video and audio files where appropriate) any relevant detailed descriptions and materials. Alternatively, please provide in the manuscript urls to openly accessible websites where these materials can be found.

e. Results: Please report statistical aspects of the study in line with the Statistical Analyses and Methods in the Published Literature (SAMPL) guidelines http://www.equator-network.org/reporting-guidelines/sampl/. Please include in the results section of your structured abstract (and, of course, in the article's results section) the following terms, as appropriate:

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v. For a systematic review and/or meta-analysis: Point estimates and confidence intervals for the main results; one or more references for the statistical package(s) used to analyse the data, eg RevMan for a systematic review. There is no need to provide a formal reference for a very widely used package that will be very familiar to general readers eg STATA, but please say in the text which version you used. For articles that include explicit statements of the quality of evidence and strength of recommendations, we prefer reporting using the GRADE system.

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g. Footnotes and statements

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