

PEER-REVIEW REPORT

Name of journal: World Journal of Orthopedics

Manuscript NO: 40390

Title: Should antibiotics be administered before arthroscopic knee surgery? A systematic review of the literature

Reviewer's code: 03067293

Reviewer's country: Spain

Science editor: Fang-Fang Ji

Date sent for review: 2018-07-02

Date reviewed: 2018-07-02

Review time: 16 Hours

SCIENTIFIC QUALITY	LANGUAGE QUALITY	CONCLUSION	PEER-REVIEWER STATEMENTS
<input type="checkbox"/> Grade A: Excellent	<input type="checkbox"/> Grade A: Priority publishing	<input type="checkbox"/> Accept	Peer-Review:
<input type="checkbox"/> Grade B: Very good	<input checked="" type="checkbox"/> Grade B: Minor language	(High priority)	<input checked="" type="checkbox"/> Anonymous
<input checked="" type="checkbox"/> Grade C: Good	polishing	<input type="checkbox"/> Accept	<input type="checkbox"/> Onymous
<input type="checkbox"/> Grade D: Fair	<input type="checkbox"/> Grade C: A great deal of	(General priority)	Peer-reviewer's expertise on the
<input type="checkbox"/> Grade E: Do not	language polishing	<input checked="" type="checkbox"/> Minor revision	topic of the manuscript:
publish	<input type="checkbox"/> Grade D: Rejection	<input type="checkbox"/> Major revision	<input type="checkbox"/> Advanced
		<input type="checkbox"/> Rejection	<input checked="" type="checkbox"/> General
			<input type="checkbox"/> No expertise
			Conflicts-of-Interest:
			<input type="checkbox"/> Yes
			<input checked="" type="checkbox"/> No

SPECIFIC COMMENTS TO AUTHORS

Dear colleagues, First of all, I has been a pleasure to review your manuscript about the antibiotics administration and knee surgery. I think this is an interesting study for clinicians who are involved in this field. The research question is very common in



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clinical practice setting. It is well written and well structured, making it easy to read and follow. Technically is well developed. Statistical analysis is adequate and correct for available data. In order to improve the quality of the manuscript, I would like to make some observations and suggestions after reading the manuscript: - Please, ensure that references format are in line with the WJO editorial rules. In the manuscript there are a mix of formats! - It would be appropriate to provide a graph that reflects the flow for the selection of studies (repeated, excluded, etc.). - Please, provide fulfilled PRISMA checklist for systematic review studies. - Your obtained NNT is very high, how can this impact on clinical practice? Discuss more in depth this issue. - Line 254, change “do”, for “to”...

INITIAL REVIEW OF THE MANUSCRIPT

Google Search:

- ☐ The same title
- ☐ Duplicate publication
- ☐ Plagiarism
- ☐ [Y] No

BPG Search:

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PEER-REVIEW REPORT

Name of journal: World Journal of Orthopedics

Manuscript NO: 40390

Title: Should antibiotics be administered before arthroscopic knee surgery? A systematic review of the literature

Reviewer's code: 00505357

Reviewer's country: Switzerland

Science editor: Fang-Fang Ji

Date sent for review: 2018-07-02

Date reviewed: 2018-07-13

Review time: 11 Days

SCIENTIFIC QUALITY	LANGUAGE QUALITY	CONCLUSION	PEER-REVIEWER STATEMENTS
<input type="checkbox"/> Grade A: Excellent	<input checked="" type="checkbox"/> Grade A: Priority publishing	<input type="checkbox"/> Accept	Peer-Review:
<input type="checkbox"/> Grade B: Very good	<input type="checkbox"/> Grade B: Minor language	(High priority)	<input checked="" type="checkbox"/> Anonymous
<input checked="" type="checkbox"/> Grade C: Good	polishing	<input type="checkbox"/> Accept	<input type="checkbox"/> Onymous
<input type="checkbox"/> Grade D: Fair	<input type="checkbox"/> Grade C: A great deal of	(General priority)	Peer-reviewer's expertise on the
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publish	<input type="checkbox"/> Grade D: Rejection	<input type="checkbox"/> Major revision	<input type="checkbox"/> Advanced
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			<input type="checkbox"/> No expertise
			Conflicts-of-Interest:
			<input type="checkbox"/> Yes
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SPECIFIC COMMENTS TO AUTHORS

This interesting review summarizes evidence for the protective usefulness of antibiotics administered prior to knee arthroscopy. Results show statistically significant but very small differences in post-surgical infection rates. More than 1000 patients have to be

treated to prevent one infection. The question of clinical relevance of this small should be discussed by the author(s) in more detail. Thereby, author(s) should discuss the potential benefit and the risk of antibiotic use with more numbers (number of knee arthroscopy per year, costs of antibiotic prophylaxe, expected number of allergic reactions to antibiotics, expected number of persons who become resistant to antibiotics, etc.). In the abstract and in conclusion as well as in core tips author(s) should not state that antibiotic prophylaxis is effective without stating a lack of efficiency, clinical meaningfulness, and potential harm from side-effects that outweigh the small benefits. Author(s) do report effectiveness of antibiotic prophylaxis via soaked graft. The discussion should compare the tremendous difference in effect size and should add other effect sizes for antibiotic prophylaxis for other types of orthopedic surgery so that readers who are not that familiar with risk estimates have a better frame of reference for the usefulness of antibiotic prophylaxis in knee arthroscopy. The key issue is to decide which patients would benefit from antibiotic prophylaxis in knee arthroscopy more than others. Another issue might be under what circumstances in knee arthroscopy antibiotic prophylaxis in knee arthroscopy is especially effective (e.g., ambulatory care versus hospital surgery, etc.). Author(s) should try to analyse such person-related and situation-related moderators of effect size. Author(s) should try to analyse potential differences with respect to (a) the kind of antibiotic agent that was administered, (b) the time when the antibiotic agent was administered before surgery, and (c) the dose of antibiotic agent. The author(s) state that evidence merely depends on a large single study and author(s) of that study are more hesitating to state effectiveness than the current author(s). In my view it could be a good idea to invite the author(s) of that single study to make a small comment to the present study that is published, too. Author(s) should add a flow diagram illustrating the search and decision process on primary studies. Information on inclusion and exclusion criteria



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should be extended. Minor point : Line 35 : « extensively »

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PEER-REVIEW REPORT

Name of journal: World Journal of Orthopedics

Manuscript NO: 40390

Title: Should antibiotics be administered before arthroscopic knee surgery? A systematic review of the literature

Reviewer's code: 03065412

Reviewer's country: United Kingdom

Science editor: Fang-Fang Ji

Date sent for review: 2018-07-09

Date reviewed: 2018-07-14

Review time: 5 Days

SCIENTIFIC QUALITY	LANGUAGE QUALITY	CONCLUSION	PEER-REVIEWER STATEMENTS
<input type="checkbox"/> Grade A: Excellent	<input checked="" type="checkbox"/> Grade A: Priority publishing	<input type="checkbox"/> Accept	Peer-Review:
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SPECIFIC COMMENTS TO AUTHORS

The authors aim to address an important topic, and do this to a decent standard. However I feel the following points require addressing prior to being able to recommend the paper for publication: 1) The authors validly comment that: 'Being

able to identify procedures and patient groups that do not require antibiotic prophylaxis offers the potential to reduce hospital costs, reduce the risk of allergic reaction to medication, and slow the development of drug resistant organisms.' And so, the authors should be cautious with the conclusions they draw (i.e. This is the first study demonstrating that prophylactic antibiotics are effective in preventing septic arthritis following simple knee arthroscopy), particularly when the sub-group analysis which 'excluded studies that involved bony procedures' found no significant difference in infection rates between the 'antibiotic vs no-antibiotic' groups. I feel the authors should better define the cohorts they have used for the 'arthroscopic procedures that do not involve the implantation of a graft'. Also when describing the results in the abstract, they should provide a balanced perspective, taking into account the heterogeneity of the procedures, and the negative results for arthroscopy which 'excluded studies that involved bony procedures'. Otherwise, the authors are unfairly advocating routine antibiotic use in all knee arthroscopy procedures. 2) The authors states in the abstract that: 'There is strong evidence to suggest that antibiotics should be used prophylactically for arthroscopic surgeries involving graft implantation, particularly ACL reconstruction.' However, within the review, they do not compare 'antibiotics vs no-antibiotics' for arthroscopic surgeries involving graft implantation. Thus this phrase should be removed or revised, where it is used throughout the text. 3) The p value for the meta-analysis of the 'antibiotic vs no-antibiotic' groups in arthroscopies 'not undergoing graft procedures, is $p=0.05$ in the abstract and the results text, but is $p=0.04$ in Table 2. Please correct accordingly. 4) The authors have not used a scoring system (e.g. Coleman Methodology Score) to assess the quality of the included studies. This can provide very useful information for the reader. The authors should strongly consider including this. 5) Inclusion of the Review Articles and Survey results in Table 1 is slightly novel, though can be justified given the information provided.



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PEER-REVIEW REPORT

Name of journal: World Journal of Orthopedics

Manuscript NO: 40390

Title: Should antibiotics be administered before arthroscopic knee surgery? A systematic review of the literature

Reviewer's code: 02706155

Reviewer's country: China

Science editor: Fang-Fang Ji

Date sent for review: 2018-07-09

Date reviewed: 2018-07-16

Review time: 7 Days

SCIENTIFIC QUALITY	LANGUAGE QUALITY	CONCLUSION	PEER-REVIEWER STATEMENTS
<input type="checkbox"/> Grade A: Excellent	<input checked="" type="checkbox"/> Grade A: Priority publishing	<input type="checkbox"/> Accept	Peer-Review:
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			<input type="checkbox"/> No expertise
			Conflicts-of-Interest:
			<input type="checkbox"/> Yes
			<input checked="" type="checkbox"/> No

SPECIFIC COMMENTS TO AUTHORS

Well, antibiotics use for arthorscopy surgery is in controversy. The evidence was scarcely explored in past. Compared with the exprience we held before, this manuscript seems to provide us more interesting information.

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