

ANSWERING REVIEWERS



April 04, 2014

Dear Editor,

Please find enclosed the edited manuscript in Word format (file name: 7959-Review.doc).

Title: Identification and preoperative optimization of risk factors to prevent periprosthetic joint infection

Author: Seung-Hoon Baek, M.D.

Name of Journal: *World Journal of Orthopedics*

ESPS Manuscript NO: 7959

First, according to the journal's revision policy, the whole manuscript has been edited and proofread by a professional English language editing company. Enclosed is the certification for proofreading.

The manuscript has been improved according to the suggestions of reviewers:

1 Format has been updated

2 Revision has been made according to the suggestions or recommendations of the reviewer. In the followings, the reviewer's comments were listed point-by-point (italicized and bolded) along with responses and the changes can be identified by page and line numbers in revised manuscript. In addition, the revised text passages in our manuscript are high-lightened.

the section:

I suggest you to put a transition here, to present to the reader the sequence in which you will discuss the present review, based on Table 1. Something like: "According to the CDC, there are two main kinds of risk factors, the demographic factors and the preexisting comorbidities. The first comprises..., the second... They will be explored separately on next topics."

We sincerely thank the reviewer for his great comment as it improved the manuscript. According to the reviewer's recommendation, a transition paragraph was inserted on Page 3, Line 72-75

Demographic characteristics:

Line 5: As a foreigner, I don't know exactly what is the "Medicare", and I imagine that other readers don't know it either. So, I suggest you to describe what it is service, something like "a public health system employed in (country)..."

According to the comment, a detailed description was added on Page 4, Line 81

Last phrase: "Moreover, patient's socioeconomic status may reflect the level of nutrition, smoking status or preexisting comorbidities, all of which would contribute to the incidence of PJI." Is this one hypothesis for the high prevalence of PJI in patients from the Medicare premium? If so, change the text and add references for this affirmation (you have presented some along the text), to conclude the idea.

Thank you. I changed the sentence and add references accordingly on Page 4, Line 82-85

Patients from medicare are poorer? In my opinion the author should explore better that these factors are, in general, not modifiable. But based on the literature they should be taken into consideration as potentially increasing the risk of PJI (the author has explored this aspect in the conclusion, but I think that this information is missing here).

Thank you for the comment. Medicare is a national social insurance program, employed by the U.S. government that guarantees access to health service for people aged 65 and older who have worked and paid into the system, and younger people with disabilities, end stage renal disease and amyotrophic lateral sclerosis. These populations have a more possibility to receive public assistance and usually, is assigned to low socioeconomic group in the literature.

(**Ong KL**, Kurtz SM, Lau E, Bozic KJ, Berry DJ, Parvizi J. Prosthetic joint infection risk after total hip arthroplasty in the Medicare population. *J Arthroplasty* 2009; **24**: 105-109. [PMID: 19493644 DOI: 10.1016/j.arth.2009.04.027]

Kurtz SM, Ong KL, Lau E, Bozic KJ, Berry D, Parvizi J. Prosthetic joint infection risk after TKA in the Medicare population. *Clin Orthop Relat Res* 2010; **468**: 52-56. [PMID: 19669386 DOI: 10.1007/s11999-009-1013-5])

Thus, the 'Medicare population' reflects specific demographic characteristics such as older age or disability which is seldom modifiable. Although socioeconomic status can be changeable depending on one's efforts or luck, it is also categorized as demographic characteristics.

Preexisting comorbidities:

Line 8: "Among retrospective studies with smaller subjects from single institutions, Pulido et al. reported higher American Society of Anesthesiologists (ASA) score, morbid obesity..." In my opinion it is better to detail what is the meaning of the high score because, for readers not familiarized with the ASA score, it seems that a high score is something good, but in fact it is not.

Thank you. I believe that most surgeons (should) know the classification system very well, but according to the reviewer's advice, the ASA score and classification were described in detail for the readers specializing in different field on Page 4, Line 100-101.

At the end of the section: Put a transition to the next topics to inform that you will explore each of the cited risk factors separately.

Following the comment, a transition was added on Page 4, Line 106.

Peripheral vascular disease and smoking:

Line 2-3: "Smoking has demonstrated deleterious effects including decreased tissue oxygenation, impaired neutrophil defense and resultant retardation of wound healing." Reference is missing.

Thank you. Following the comment, a reference was inserted on Page 6, Line 147-149.

Coagulopathy: Line 1: "Coagulopathy including high INR can..." What is INR?

I rewrote it in full on Page 7, Line 179.

Depression and psychosis:

Line 4: "...and often, management of depressive mood itself improves the clinical symptoms of osteoarthritis." Is there any research corroborating this affirmation?

Of course, the reference was added at the next sentence in the original manuscript and was referred again at the end of the sentence, "...and often, management of depressive mood itself improves the clinical symptoms of osteoarthritis." in revised manuscript on Page 7, Line 197.

Last line: Also, it is rarely performed elective arthroplasty in patients with schizophrenia." Change schizophrenia for psychosis, because there are more psychiatric diseases than schizophrenia only.

Thank you. According to the comment, it was changed into psychosis on Page 7, Line 201.

Remote and coexistent infection:

Last line: What is the practice within the author's institution?

The practice in those patients was described on Page 8, Line 208-211.

Discussion:

In my opinion the last two paragraphs before conclusion seems more like a discussion section than a continuation of the previous topic. Authors should consider this part as a discussion.

Thank you for your comment. I can see your point, but there's a big misunderstanding for the last two paragraphs- Of course, it totally originate from my poor description of context.

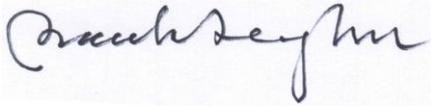
I already described the main risk factors commonly encounter one-by-one. But the more common situation is that many or most patients have two or more risk factor because those scheduled for arthroplasty are usually elderly. For example, we knew that the female patient with rheumatoid arthritis, anemia as well as diabetes or obese male with cardiac disorder has an elevated risk for PJI. But, who is more risky? And how much risky they are? Thus, clinicians need to integrate and quantify all of these risk factors. It helps imagine overall pictures of the patients. To integrate all risk factors, clinicians should perform thorough medical clearance including history taking, physical exam and laboratory test. And it is not uncommon for the elderly to have a new diagnosis after complete medical clearance.

To make it clear, new subtitle, "Integration of multiple risk factors and medical clearance" was added on Page 8, Line 227.

3 References and typesetting were corrected

Thank you for considering publication of the manuscript in the World Journal of Orthopedics

Sincerely yours,

A handwritten signature in black ink, appearing to read 'Seung-Hoon Baek', written in a cursive style.

Seung-Hoon Baek M.D.

Hip and Osteoporosis

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