

January 13, 2014

Dear Editor,

Please find enclosed the edited manuscript in Word format (file name: VAD outcomes chapter-Revision_unmarked.doc).

Title: Outcomes of Continuous Flow Ventricular Assist Devices

Author: Shelly Bansal, MD, Chittoor B. Sai-Sudhakar, MBBS, FACS, Bryan A. Whitson, MD, PhD

Name of Journal: *World Journal of Surgical Procedures*

ESPS Manuscript NO: 7780

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 of the reviewer

This is an excellent review on left ventricular assist devices, focusing on axial flow pumps. The manuscript is very concise, informative and very well written. I believe that the addition of some figures of the main LVADs described (accompanied by drawings of their implantation) is probably necessary. Minor point: please add units in page 12, in transpulmonary gradient and pulmonary vascular resistance.

The manuscript entitled "Outcomes of Axial Flow Ventricular Assist Devices" is a well written review. There are some minor corrections: Page 2: "addition they have a singular moving....." instead of "addition they have a have a singular moving....." Page 5: "..., infections, stroke, and" instead of "..., infections, stoke, and"

Excellent review on Left ventricular assist device. Few comments 1. Recently there have been concern of increasing incidence of early thrombosis with the HeartMate II that is associated with substantial morbidity and mortality(Starling RC, Moazami N, Silvestry SC et al. Unexpected Abrupt Increase in Left Ventricular Assist Device Thrombosis. N Engl J Med. 2013 Nov 27). So the quality of the manuscript will improve, if authors can incorporate data from this new article and make new recommendations based on this updated risk-benefit profile. 2. It be helpful to reader, if authors can add a table summarizing the indication and contraindication. 3. Can authors say anything if bridge to recovery is better for Non-ischemic cardiomyopathy compared to ischemic cardiomyopathy.

The author reviewed current situation about axial flow ventricular assist devices. This paper is well written and organized review. However, there are some minor issues to be addressed. Please check the abbreviation of right ventricular failure. The author mentioned RAMP protocol in P10L3, but there is no explanation or reference about it. The author mentioned the stroke rates will vary depending on the therapeutic strategies and device type. More concise description about it should be added. Because of the title of this manuscript, "axial" flow ventricular device, more comparative assessment between axial and centrifugal or pulsatile left ventricular assist device should be added. There is no reference about Kormos's report in P12L22. There are several typographical errors that should be corrected.

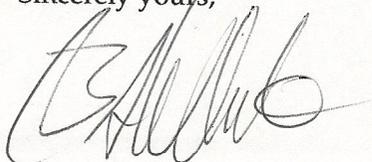
In this minireview manuscript, Bansal et al summarized the recent progress on left ventricular assist devices (LVAD) and the accompanying considerations from various aspects. Although this reviewer recognized scientific merit, numerous concerns are pointed as detailed below. 1. The authors should discuss adequately the economical aspect as an essential part of the outcome. Nowadays, many countries share the issues of limited medical resources, and it is unrealistic to perform "ideal" therapies regardless of their costs. 2. Very frequently in the text, a comma is missing before "and" that conjuncts two clauses. Examples are too many to be listed. Please correct all. 3. The citation numbers are supposed to be in square brackets. They were also recurrently placed after punctuations by mistake. The authors must follow the basic rules. 4. This reviewer encourages assigning line numbers throughout the text for a smoother reviewing process. 5. On page 2, line 23, "they have a have a" should be corrected. 6. On page 2, line 26, "that that" should be corrected. 7. On page 4, line 24, the sentence "There are an average ..." seems inappropriate. What do the authors mean by "average" and "per day"? This reviewer supposes this number would represent data on a given day. 8. On page 5 and 6, it would be common to call "axial flow device" rather than "flow axial device". Please consider substitutions. 9. On page 7, line 17, following the sentence ending with "solution" the authors could insert the entire third paragraph. Then, replace the last sentence "More durable ..." by stating, for example, "These options are durable but come with ...". 10. On page 7, the 2nd line from the bottom, please rephrase "Leaving ... leaves ...". 11. On page 8, line 10, "LVAD explanation" should be rephrased. 12. On page 8, line 11, a period is missing. 13. On page 8, line 14, please rephrase "Continued ... continues ...". 14. On page 8, line 20, does the authors mean "remodeling of the RV" instead? 15. On page 8, the 3rd line from the bottom, does the authors mean "One of" instead? 16. On page 9, the last line, a period is missing. 17. On page 10, line 4, the sentence "Increase in pump speed ... may help resolve the pump speed" may not make sense. Please rephrase, or otherwise explain in a better manner. 18. On page 11, line 8, please rephrase the title "Comparison Compared ...". 19. On page 11, line 12, what is "LVADS"? 20. On page 11, line 12, there is an extra dot. 21. On page 11, line 15, "One year survival ... at one year" should be corrected. 22. On page 12, line 15, please rephrase the sentence "While the ... " for clarity. 23. On page 13, line 3, "MCS" should be spelled out. Since this term appeared only once, the abbreviation would be unnecessary. 24. Although not mentioned above, there are extra spaces as well as missing spaces here and there. Overall, the entire manuscript must be edited thoroughly and carefully prior to potential resubmission.

We thank the reviewer's for their thoughtful and insightful comments. The points have been addressed in the edited manuscript. At reviewer 3's request, the title of the manuscript has been adjusted. If there are additions that the Editor would specifically like to strengthen the manuscript, please let us know. We thank you for your kind review.

3 References and typesetting were corrected

Thank you again for publishing our manuscript in the *World Journal of Surgical Procedures*.

Sincerely yours,



Bryan A. Whitson, MD, PhD

Division of Cardiac Surgery

The Collaboration for Organ Perfusion, Protection, Engineering and Regeneration (COPPER) Laboratory

The Ohio State University Wexner Medical Center