Reviewer's report

**Title:** Preoperative insulin sensitivity and complications after hip replacement surgery in non-diabetic patients

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**Reviewer:** Angela M. Bader

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The concept of preoperative and intraoperative diabetic management is extremely important and there is little data available outside the cardiac surgery population to provide any guidance or inform decision making. This is especially important for patients with abnormal glucose issues preop without a clear diagnosis in terms of benefit of delaying surgery for optimization or conducting intraoperative processes differently. Therefore, I do think this article adds important information. However, I find the terminology throughout the article extremely confusing especially for perioperative physicians who are not endocrinologists. For example, the concept of "low or high insulin sensitivity " is difficult for me to understand- is this the opposite of insulin resistance? It is like getting into the terminology of double negatives in grammar which kept me distracted throughout the manuscript. instead of using terms like low and high sensitivity, could the authors think about editing the paper to define these terms in an easier way to understand? perhaps letting the reader know in numerical terms what "low" "normal" and "high" values would be or even better defining as greater than or less than some number early on even in the abstract and introduction so the manuscript is more easily readable? this may be very easy for those familiar with the area but insulin sensitivity in general is not something that surgeons and anesthesiologists think about and if this work is to have impact it needs to be more understandable to the end user. That being said, the implications of the work are important. How would the authors suggest those screening thousands of preoperative patients apply this information in a generalizable way? What is the impact on guidelines for preoperative assessment? This work only has impact if there are ways to recommend utilizing the information to improve care in a generalizable way.

**Level of interest:** An article of importance in its field

**Quality of written English:** Not suitable for publication unless extensively edited

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that i have no competing interests.