

## Peer Review File

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### Review Comments

#### Reviewer A

**Comment 1:** Remove comment stating postoperative harris hip scores being higher with modular but not statistically significant from the "key findings" section. The difference was not statistically or clinically significant, so it does not belong in the "key findings".

**Reply 1:** Thank you. We removed it in the key findings section.

**Changes in the text:** No statistically significant difference was found for postoperative Harris Hip Score ( $p=0.38$ ),

**Comment 2:** Were all of the non-modular stems taper fluted titanium? Were all of the modular stems with taper fluted titanium diaphyseal components? Fully porous coated components may have different outcomes than TFT components, so it is worth mentioning the make up of these stem designs in the cohort.

**Reply 2:** Thank you for the appropriate comment. We added Table 2.

**Comment 3:** Retrospective studies comparing modular and non-modular stems are subject to extreme bias, as surgeons likely used modular stems for more complex cases. This is definitely worth mentioning. It is interesting you found no statistically significant difference between the two types of stems despite this.

**Reply 3:** Thank you. We reported this bias in the limitations section.

**Changes in the text:** Moreover, the modular stem is usually used for more complex cases with lower quality femoral bone stock, even if many authors did not analyze the femoral bone stock with radiographic scores.

**Comment 4:** Please include a table or description of the actual stem manufacturer and brand in each study. Outcomes of revision femoral components are often stem-specific and this is worth mentioning.

**Reply 4:** Thank you for the interesting comment. We added Table 2.

**Comment 5:** Your study fails to mention component cost. Modular stems are much more expensive than monoblock stems. This is a very important consideration and worth including in the discussion.

**Reply 5:** Thank you for the appropriate comment. We added this statement in the discussion.

**Changes in the text:** An important factor is highlighted by Clair et al. about the cost of implants: nonmodular stems are significantly less expensive than modular implants. This analysis should be considered, because all hospitals have a budget cap today.

#### **Reviewer B**

**Comment:** The manuscript is focused on an interesting topic: the application of modular versus monoblock stem in revision total hip arthroplasty. The authors performed a systematic review and there are no concerns about the methodology. Moreover, they should take into consideration the use of 1-2 illustration or xray emphasizing the differences of the two stem types design.

**Reply:** Thank you for the appropriate comment. We added two X-Rays to show the different type of stems. Moreover, we added Giuseppe Marongiu as author, who provided us with cases and X-Rays and helped us review the manuscript.