Author’s response to reviews

Title: Comparison of volar-flexion, ulnar-deviation and functional position cast immobilization in the non-operative treatment of distal radius fracture in elderly patients: a pragmatic randomized controlled trial study protocol

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Reviewer reports:

Valentin Neuhaus (Reviewer 1): Thank you very much for the opportunity to review this revised study protocol. The authors sufficiently answered my concerns and adapted accordingly the manuscript. I am looking forward to see the results!
- The authors thanks for the reviewer of the positive comments.

Cristoph Bartl (Reviewer 2). The authors included the majority of the comments into their manuscript and provided all the necessary changes and modifications.

1. Nevertheless the authors often commented that randomisation will account for a equal distribution between the groups - if such big efforts are made in a RCT, it is not only the
question if group a differs from group b but also, are the results comparable to other studies - and which cast method is the best or appropriate one which cast method leads to the lowest conversion rate to surgery. Here the reviewers can only give a recommendation from their experience from their RCTs!

- The authors acknowledge the issue of comparability of this pragmatic RCT to other previous explanatory RCTs, however the results of this study are likely to be more generalisable to every day decision-making done by clinicians.

2. One thing will be interesting: does volar flexion position lead to a greater extent of loss of reduction - an AE? - Here the comparison of intensifier magnification pictures to the immediate post reduction x-ray is interesting. On the other hand: will dorsal extension position in the wrist joint will result in a greater initial dorsal angulation of the distal radius? - lower rate of loss of reduction? In which position the secondary conversion to surgery is lower?

- We wait with great interest to see their results of these two cast immobilization methods regarding to changes in reduction and conversion rate to surgery.

3. In RCTs dealing with DRF the regain of the functional status is an important point.

- The authors strongly agree with the importance of measuring the objective and subjective functional status of the wrist and hand after the conservative treatment of DRF.

4. Is re-reduction allowed in a case of relevant secondary dislocation following adequate position in the intensive magnifier to the post reduction x-ray?

- The authors do not recommend re-reduction in case of secondary dislocation but due to a pragmatic trial setting we will not set strict rules for that.