

ESPS Peer-review Report

Name of Journal: World Journal of Rheumatology

ESPS Manuscript NO: 10603

Title: Monitoring Osteoporosis Therapy: Can FRAX help assessing success or failure in achieving treatment goals?

Reviewer code: 02444711

Science editor: Fang-Fang Ji

Date sent for review: 2014-04-09 19:28

Date reviewed: 2014-05-04 22:21

| CLASSIFICATION | LANGUAGE EVALUATION | RECOMMENDATION | CONCLUSION |
|--|---|-------------------------------------|--|
| <input type="checkbox"/> Grade A (Excellent) | <input type="checkbox"/> Grade A: Priority Publishing | Google Search: | <input type="checkbox"/> Accept |
| <input type="checkbox"/> Grade B (Very good) | <input checked="" type="checkbox"/> Grade B: minor language polishing | <input type="checkbox"/> Existed | <input type="checkbox"/> High priority for publication |
| <input checked="" type="checkbox"/> Grade C (Good) | <input type="checkbox"/> Grade C: a great deal of language polishing | <input type="checkbox"/> No records | <input type="checkbox"/> Rejection |
| <input type="checkbox"/> Grade D (Fair) | <input type="checkbox"/> Grade D: rejected | <input type="checkbox"/> Existed | <input type="checkbox"/> Minor revision |
| <input type="checkbox"/> Grade E (Poor) | | <input type="checkbox"/> No records | <input checked="" type="checkbox"/> Major revision |

COMMENTS TO AUTHORS

This is a retrospective clinical study to investigate the use of FRAX to monitor the patients receiving osteoporosis therapy and to study the relationship between the post-treatment FRAX and the occurrence of new low trauma fractures. A total of 579 subjects were included in the analysis and the results indicate that FRAX is useful to predict fracture probability in the subjects treated for osteoporosis. The study is of very good clinical significance and clinically applicable. However, there are a few items that need the authors to clarify. 1. Please provide the reference number of ethical approval in Methods, if available. 2. One of the key outcomes in this study was new low trauma fracture incidence. However, the manuscript does not mention how to record this data. Please provide. 3. In Methods under "Patients", there is a sentence "The age range was from 50 to 79 years (mean 64.3±9.4 years)". I think this should be put in Results. Instead, the authors should tell the planned age range of the original proposal in Methods. 4. In Methods under "Measurements", the authors mentioned blood check and FRAS score of fall risk. However, I do not see any report or analysis on these parameters and I am confused their relevance to this study. Why to mention them? Please clarify. 5. The statistical description is not clear enough. I cannot follow well which test for which data, esp. paired t-test. Please specify clearly. 6. Also, I am very confused on Fig. 1-3. Based on legend, they are supposed to be correlation data. What are HS and NS? What are the numbers above the bars? I think correlation data should be presented in table? 7. Results, first sentence: please provide the number apart from the percentages. This will be clearer. 8. Results, 3rd paragraph, first sentence: what is the meaning of (>0%)? 9. Results, 3rd paragraph, second



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sentence: "After controlling for covariates," – what are the covariates? I cannot follow what it is. Methods did not mention at all on controlling covariates. 10. In Table 3, among all the correlation coefficients, the one between BMD total proximal femur at baseline and FRAX 10-year hip fracture risk probability was up to -0.741 that was the highest one, while the others are around 0.5. Any reason or explanation why this correlation is much better than others. Please discuss.

ESPS Peer-review Report

Name of Journal: World Journal of Rheumatology

ESPS Manuscript NO: 10603

Title: Monitoring Osteoporosis Therapy: Can FRAX help assessing success or failure in achieving treatment goals?

Reviewer code: 00646697

Science editor: Fang-Fang Ji

Date sent for review: 2014-04-09 19:28

Date reviewed: 2014-05-27 20:56

| CLASSIFICATION | LANGUAGE EVALUATION | RECOMMENDATION | CONCLUSION |
|---|--|-------------------------------------|--|
| <input type="checkbox"/> Grade A (Excellent) | <input checked="" type="checkbox"/> Grade A: Priority Publishing | Google Search: | <input type="checkbox"/> Accept |
| <input checked="" type="checkbox"/> Grade B (Very good) | <input type="checkbox"/> Grade B: minor language polishing | <input type="checkbox"/> Existed | <input type="checkbox"/> High priority for publication |
| <input type="checkbox"/> Grade C (Good) | <input type="checkbox"/> Grade C: a great deal of language polishing | <input type="checkbox"/> No records | <input type="checkbox"/> Rejection |
| <input type="checkbox"/> Grade D (Fair) | <input type="checkbox"/> Grade D: rejected | <input type="checkbox"/> Existed | <input type="checkbox"/> Minor revision |
| <input type="checkbox"/> Grade E (Poor) | | <input type="checkbox"/> No records | <input checked="" type="checkbox"/> Major revision |

COMMENTS TO AUTHORS

Dear authors, I read with interest your paper entitled "Monitoring Osteoporosis Therapy: Can FRAX help assessing success or failure in achieving treatment goals?". The current work discussed important topic, there is a lack of objective tool to evaluate the effectiveness of specific drug on osteoporosis. The findings showed that FRAX can be used effectively to evaluate the effectiveness of therapeutic intervention at 2 and 5 years post-intervention. The study is relevant to the Journal and topics within the scope of the Journal. There are currently major concerns that preclude publishing the work in its current format. The lines are not numbered and pages are not numbered, this make the review process very difficult and impractical. The manuscript is too long and at least could be shortened by 1/3. The concept is clear and there is no need to project on irrelevant aspects not directly related to the topic. Concerns 1- Please do not use slang terms in scientific writing" hot issue" or "drug holiday". 2- The authors need to define clearly FRAX and the criteria for using FRAX, how to calculate FRAX or provide a figure. 3- The introduction section is vague and does not include the current findings in the field or previous studies that have conducted with similar research questions. The authors need to stress out the novelty of the work. Methods 1- Local ethical committee approved the study. you need to mention the name of the medical or academic entity that approved the study. 2- In the study design, you referred that all patients were treaded according to the guidelines either your reference or state the guidelines. 3- Subjects demographics (weight, height, BMI, ages) and ethnic backgrounds (white or black, Asian, etc) are not clear. 4- You need to state exactly the size of the sample subgroup of patients who did not show improvement. 5- It is unclear

that all participants were scanned at 2 and 5 years or there a range of time when scans were conducted for each patient. Along the same point, please state how many scans were conducted for each patient? What is the least squared difference for repeated scans. 6- I did not clearly understand what do you mean by diagnosis or RA or smoking were crosschecked, what do you mean by this? 7- In the measurement section “ T-score= mean value of osteoporotic post-menopausal women? Results 1. Out of the 579 participants, how many drop out and how many continued the study till the end? 2. The authors stated 48% of the total low trauma was hip fractures what about the other 52%? 3. What is the y-axis in Figures 1, Figure 2 and Figure 3. In figure 3, it is unclear what the numbers on the top of each column are? Is this a FRAX score or percentage you need to clearly state how did you drive this number? 4. Figure legends descriptions need to change for 1, 2 and 3, please any reference to correlation from the description. Discussion 1- The discussion section is too long and needs to be trimmed significantly 2- What is the scientific basis of FRAX 3- Why authors think that there are subgroup that FRAX assessment did not able to predict their risk of developing osteoporosis. This should be considered as a limitation of the study 4- A clear limitation section needs to be highlighted in the discussion 5- There are many sentences in the discussion are incomplete or does not make any sense a. - increase risk probability of what? b. - Both analyses have been challenged by what? c. Although, regression to the mean.... What do you mean by this? d. Osteoporosis therapy does not annual fracture predictions.. what is that mean 6- Conclusion section should practical implications and future recommendations.