

PEER-REVIEW REPORT

Name of journal: World Journal of Gastroenterology

Manuscript NO: 57683

Title: Real-world clinical outcomes, direct medical costs, and cost-effectiveness associated with infliximab maintenance therapy for moderate to severe Crohn's disease in China

Reviewer's code: 05232908

Position: Peer Reviewer

Academic degree: MD

Professional title: Doctor

Reviewer's Country/Territory: Sweden

Author's Country/Territory: China

Manuscript submission date: 2020-07-02

Reviewer chosen by: AI Technique

Reviewer accepted review: 2020-07-03 14:06

Reviewer performed review: 2020-07-03 15:11

Review time: 1 Hour

Scientific quality	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Very good <input checked="" type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
Language quality	<input type="checkbox"/> Grade A: Priority publishing <input checked="" type="checkbox"/> Grade B: Minor language polishing <input type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection
Conclusion	<input type="checkbox"/> Accept (High priority) <input type="checkbox"/> Accept (General priority) <input checked="" type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input type="checkbox"/> Rejection
Re-review	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Peer-reviewer	Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous

SPECIFIC COMMENTS TO AUTHORS

Dr Shi and co-authors present an interesting paper on the potential cost-effectiveness (CE) of infliximab for the treatment of Crohn's disease in China. The paper is quite well written, and uses an ambitious approach to estimate CE model parameters by collecting real world data from Crohn's patients in a Chinese hospital. I enjoyed reading this paper, and believe it contributes to the understanding of the CE for an important treatment in a setting with a seemingly low choice of options. However, the paper would benefit from better explanations of key concepts, and problematisation of some of the results. Please find my comments below:

- L 73-76: Please specify the comparator of ACCENT 1. You write "In this trail [sic], there was a significantly higher clinical remission rate, a higher mucosal healing rate, and a lower hospitalization rate associated with one-year infliximab MT (IMT)", leaving the reader wondering compared to what?
- L 82-87: Important! The manuscript would benefit from discussing other relevant comparators to infliximab (biologics). E.g. other TNF-alpha inhibitors (e.g. etanercept, adalimumab, vedolizumab) and IL-12 and 23 inhibitor ustekinumab. If they are not available to Chinese patients this should be clarified. If they are available, the paper should include a discussion on why they were not considered as comparators. If previous cost-effectiveness analyses have been done on these comparators in the relevant setting, they should be discussed. Especially if any comparisons have been done with infliximab.
- L 171-181: Important! The study groups seem to significantly differ in important characteristics (such as age and comorbidities). What are the implications of this? Did you take into account how the differences in outcomes may be attributed to differences between study groups? For example, if younger patients in general have a higher level of QoL some of the QoL benefit in the IMT group should be attributed to the younger



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average age in the IMT group. This should be explained more thoroughly. • One study group only comprise 130 patients. Please include a discussion on potential problems and inherent uncertainties related to such small patient samples. Did you have outliers? • Describe more in-depth the treatment patterns of infliximab. Do you have information on how closely patients followed recommended infliximab use (in terms of induction and maintenance doses)? What is the recommended use? Describe how you defined induction and maintenance periods in the model. • Important! As the utilities seem to have a very large impact on the results, you should use sensitivity analyses with other utilities from a different source, e.g. based on infliximab trial or from other literature. Especially since the model uses utilities estimated from so few patients, with some uncertainties regarding the study method. • L224-227: Please comment on the sensitivity results in relation to base-case. • L259-260: This doesn't seem to make sense. Shouldn't it instead say that the infliximab acquisition cost is likely the main cost driver? (Rather than cost-effectiveness driver). • Some spelling errors: e.g. "trail" instead of "trial", double spaces in some places, very long sentences which would benefit from being split into shorter sentences.