Author's response to reviews

**Title:** The effectiveness and cost-effectiveness of treatments for Idiopathic Pulmonary Fibrosis: systematic review, network meta-analysis and health economic evaluation.

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**Author's response to reviews:** see over
Dear Dr Cornacchia,

Re: The effectiveness and cost-effectiveness of treatments for Idiopathic Pulmonary Fibrosis: systematic review, network meta-analysis and health economic evaluation

Thank you for forwarding the comments of the statistical peer reviewer for the above entitled article and for allowing us the opportunity to respond to these in a revised document. I have re-submitted an updated document and have outlined here the changes that we have made in response to the comments (table below).

I hope that these changes are acceptable and look forward to hearing from you again soon.

Yours sincerely,

Emma Loveman

<table>
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<th>Reviewer comments</th>
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| The authors have failed to address my critique that some of their assumptions are logically inconsistent (there was not a typo in my report). Perhaps some of the confusion was due to the author's use of "enter the model"-it would be more accurate to say that all patients are initially unprogressed. I was assuming the model was a model for treatment (in which case patients) | Wording on original line 172 (now lines 174-5) changed from 'all patients enter the model in the unprogressed state' to 'all patients are in the unprogressed state initially'  
Added text to first sentence of this paragraph, line 162 (now line 164), to clarify the unprogressed state: A decision-analytic model was developed to compare the cost- |
<table>
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<tr>
<th>Certainly could enter in a progressed state but evidently it is a model for the disease process. In that case the start of this paragraph should not talk about a model for interventions.</th>
<th>Effectiveness of pharmacological interventions for patients with initially unprogressed IPF.</th>
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<td>FVC % predicted &gt;70% indicates unprogressed IPF okay, fine, that is part of the definition of &quot;unprogressed IPF&quot;, so FVC % predicted &gt;70% implies unprogressed IPF but not vice versa? Just make this aspect of the definition of unprogressed IPF more clear. However it is still possible that someone experiences a 10% reduction and has FVC % predicted &gt;70% in which case they fit the criteria for both the progressed and unprogressed state.</td>
<td>FVC % predicted &gt;70%, unprogressed IPF, is not an assumption that relates to the disease process so does not contradict the 10% decline assumption. The &gt;70% assumption was only made in order to assign utilities to our two health states. None of the utility studies which we found had utilities which fitted neatly with our unprogressed and progressed (&gt;10% decline in FVC% predicted) health states, so we needed some other criterion to assign the utilities found in the studies to our health states. To make this clearer we have reworded the assumption (line 177-8) to state: FVC% predicted was used as a proxy for disease severity when assigning utilities to the health states.</td>
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<td>While the authors do report odds ratios in Table 2, SMDs do appear in the text on page 6, hence there was a lack of consistency in presentation.</td>
<td>SMDs in the text were from the pairwise meta-analyses which were not converted. For the NMA we converted the SMDs to ORs as we believed these would be easier to interpret in the context of an NMA. We have altered the text to make this clearer (changes made in lines 151-2, 154-6, 161).</td>
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<td>It's not clear what &quot;face validity&quot; means in the context of model selection—if that model was selected via AIC that is fine and just say so.</td>
<td>The model was selected via AIC and through comparison of the survival predicted by the model and the known survival in IPF patients. Text added on line 287-8 (now 289-90) to clarify this.</td>
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<td>p 9 l 319-then this should read &quot;The combination of azathioprine and ...&quot;</td>
<td>Changed in the text.</td>
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