

## PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form ([see an example](#)) and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below. Some articles will have been accepted based in part or entirely on reviews undertaken for other BMJ Group journals. These will be reproduced where possible.

### ARTICLE DETAILS

<b>TITLE (PROVISIONAL)</b>	Protocol for a prospective multicentre cohort study to develop and validate two new outcome measures for patients with inflammatory bowel disease.
<b>AUTHORS</b>	Alrubaiy, Laith; Hutchings, Hayley; Williams, John

### VERSION 1 - REVIEW

<b>REVIEWER</b>	Prof Jonathan Rhodes, University of Liverpool, UK
<b>REVIEW RETURNED</b>	14-May-2013

<b>THE STUDY</b>	<p>I am strongly supportive of this important study but would recommend that the authors consider three important modifications:</p> <p>1. They need to take into account two key publications that they seem to have missed:</p> <p>Development and validation of a patient-reported disability measurement tool for patients with inflammatory bowel disease. Allen PB, Kamm MA, Peyrin-Biroulet L, Studd C, McDowell C, Allen BC, Connell WR, De Cruz PP, Bell SJ, Elliot RP, Brown S, Desmond PV, Lemann M, Colombel JF. Aliment Pharmacol Ther. 2013 Feb;37(4):438-44. doi: 10.1111/apt.12187. Epub 2012 Dec 22.</p> <p>Development of the Crohn's disease digestive damage score, the Lémann score. Pariente B, Cosnes J, Danese S, Sandborn WJ, Lewin M, Fletcher JG, Chowers Y, D'Haens G, Feagan BG, Hibi T, Hommes DW, Irvine EJ, Kamm MA, Loftus EV Jr, Louis E, Michetti P, Munkholm P, Oresland T, Panés J, Peyrin-Biroulet L, Reinisch W, Sands BE, Schoelmerich J, Schreiber S, Tilg H, Travis S, van Assche G, Vecchi M, Mary JY, Colombel JF, Lémann M. Inflamm Bowel Dis. 2011 Jun;17(6):1415-22. doi: 10.1002/ibd.21506. Epub 2010 Nov 28.</p> <p>2. They need to take great care to distinguish between disease activity/severity at a single time point and activity/severity over a longer time period eg 12 months. The latter will be a much more appropriate outcome metric to assess quality of care - particularly since a well run clinical service will tend to see patients only when they are unwell and may look worse than a less well run clinic if activity/severity at a single time point is used as the metric to judge its performance.</p>
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	<p>3. they should consider the additional inclusion of one or more patient-derived simple visual analogue scores that might be validated against more complex metrics and used as a tool to allow universal monitoring of IBD care across the NHS.</p>
<b>GENERAL COMMENTS</b>	<p>I am strongly supportive of this important study but would recommend that the authors consider three important modifications:</p> <p>1. They need to take into account two key publications that they seem to have missed:</p> <p>Development and validation of a patient-reported disability measurement tool for patients with inflammatory bowel disease. Allen PB, Kamm MA, Peyrin-Biroulet L, Studd C, McDowell C, Allen BC, Connell WR, De Cruz PP, Bell SJ, Elliot RP, Brown S, Desmond PV, Lemann M, Colombel JF. <i>Aliment Pharmacol Ther.</i> 2013 Feb;37(4):438-44. doi: 10.1111/apt.12187. Epub 2012 Dec 22.</p> <p>Development of the Crohn's disease digestive damage score, the Lémann score. Pariente B, Cosnes J, Danese S, Sandborn WJ, Lewin M, Fletcher JG, Chowers Y, D'Haens G, Feagan BG, Hibi T, Hommes DW, Irvine EJ, Kamm MA, Loftus EV Jr, Louis E, Michetti P, Munkholm P, Oresland T, Panés J, Peyrin-Biroulet L, Reinisch W, Sands BE, Schoelmerich J, Schreiber S, Tilg H, Travis S, van Assche G, Vecchi M, Mary JY, Colombel JF, Lémann M. <i>Inflamm Bowel Dis.</i> 2011 Jun;17(6):1415-22. doi: 10.1002/ibd.21506. Epub 2010 Nov 28.</p> <p>2. They need to take great care to distinguish between disease activity/severity at a single time point and activity/severity over a longer time period eg 12 months. The latter will be a much more appropriate outcome metric to assess quality of care - particularly since a well run clinical service will tend to see patients only when they are unwell and may look worse than a less well run clinic if activity/severity at a single time point is used as the metric to judge its performance.</p> <p>3. they should consider the additional inclusion of one or more patient-derived simple visual analogue scores that might be validated against more complex metrics and used as a tool to allow universal monitoring of IBD care across the NHS.</p>

<b>REVIEWER</b>	<p>Dr Seamus J Murphy PhD FRCP Edin  Consultant Gastroenterologist  Southern Health and Social Care Trust  Department of Medicine  Daisy Hill Hospital  5 Hospital Road  Newry  Co. Down  N. Ireland BT35 8DR</p>
<b>REVIEW RETURNED</b>	29-May-2013

<b>GENERAL COMMENTS</b>	This is an interesting and worthwhile endeavour to attempt to improve a major shortcoming in IBD –accurate, reliable, easy to use
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	<p>quality of life measures.</p> <p>I have the following comments:</p> <ol style="list-style-type: none"> <li>1. It would be helpful if the authors provided additional information for the estimated timescales for each part of the study. Also, how many centres do they think should take part in the study? Is this planned as a UK study or can recruitment occur outside UK? Will academic and DGH centres be involved for recruitment? How many participants will likely be required to take part in the focus group? Will this be a multicentre focus group?</li> <li>2. Validity. Construct validity will be tested using the HBI, simple clinical colitis activity index and PDAI. Why were these indices chosen for construct validity from among all the available indices?</li> <li>3. Test-retest reliability/reproducibility. A 6-week interval is proposed to assess this. How will this work in the assessment of acute severe colitis patients? –their condition is unlikely to remain static over a 6-week period, i.e. they will have got significantly better with medical treatment or they will have undergone colectomy –either way, their clinical condition will have changed significantly.</li> </ol>
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### **VERSION 1 – AUTHOR RESPONSE**

Reviewer 1: Prof Jonathan Rhodes, University of Liverpool,

1. Thanks for letting us know about these two papers. They have been added to the introduction section of the manuscript
2. We totally agree with your comment and have acknowledged it in the manuscript. This, of course, will also be discussed in the focus group meeting when selecting the items.
3. Quality of life will be presented as a simple score that will be derived from items completed by patients with different IBD phenotypes in a broad spectrum of settings. The score will enable monitoring over time and comparative assessment across different UK locations.

Reviewer 2: Dr Seamus J Murphy PhD FRCP Edin, Southern Health and Social Care Trust

1. Time scale of the study was added to the methodology section as well as the details of the focus group.
2. HBI, simple clinical colitis activity index and PDAI clinical indices will be selected because they are easy to use and widely cited in the literature.
3. For practical reasons, we will allow a period of 2-6 weeks after the first assessment or since the first questionnaire was completed. Previous studies have illustrated that a period of less than 2 weeks is not reliable as patients might remember their answers and select them again. Therefore we expect to include patients with quiescent to moderate IBD for the reproducibility analysis because patients with severe IBD will more likely have their disease changed or have surgery within 2 weeks.