

Supplementary table 1. Numerical endoscopic scoring systems for ulcerative colitis.

<b>Index</b>	<b>Setting</b>	<b>Description of Scale</b>	<b>Extent of Use</b>	<b>Level of Validation</b>
Van Der Heide <sup>1</sup> (1987)	Randomized-controlled, prospective study	<p>Numerical grading system generating a total score (0-16) composed of 8 variable sub-scores:</p> <ul style="list-style-type: none"> <li><b>a) Colour:</b> (0) Normal, (1) Red, (2) Deeply red</li> <li><b>b) Vascular pattern:</b> (0) Normal, (1) Partially absent, (2) Absent</li> <li><b>c) Friability:</b> (0) Normal, (1) Slight, (2) Severe</li> <li><b>d) Granularity:</b> (0) Absent, (1) Fine, (2) Coarse</li> <li><b>e) Rectal valves:</b> (0) Sharp, (1) Swollen, (2) Absent</li> <li><b>f) Ulcers:</b> (0) Absent, (1) Few, (2) Multiple</li> <li><b>g) Spontaneous bleeding:</b> (0) Absent, (1) Discrete, (2) Severe</li> <li><b>h) Mucopurulent exudate:</b> (0) Absent, (1) Little, (2) Much</li> </ul>	Some clinical studies	Not validated
Endoscopic Index (Rachmilewitz index) <sup>2</sup> (1989)	Prospective study	<p>Numerical grading system generating a total score (0-12) composed of 4 variable sub-scores:</p> <ul style="list-style-type: none"> <li><b>a) Granulation scattering reflected light:</b> (0) No, (2) Yes</li> <li><b>b) Vascular pattern:</b> (0) Normal, (1) Faded/disturbed, (2) Completely absent</li> <li><b>c) Vulnerability of mucosa:</b> (0) None, (2) Contact bleeding, (4) Spontaneous bleeding</li> <li><b>d) Mucosal damage (mucus, fibrin, exudate, erosions, ulcer):</b> (0) None, (2) Slight, (4) Pronounced</li> </ul>	Multiple clinical studies and RCT	Not validated
Sigmoidoscopic index (Hanauer) <sup>3</sup> (1989)	Prospective study	<p>Numerical grading system generating a total score (0-16) composed of 5 variable sub-scores, each graded as (0) normal, (1) mild, (2) moderate or (3) severe:</p> <ul style="list-style-type: none"> <li><b>a) Erythema</b></li> <li><b>b) Friability</b></li> <li><b>c) Granularity/ulceration</b></li> <li><b>d) Mucopus</b></li> <li><b>e) Disappearance of mucosal vascular pattern</b></li> </ul>	Multiple clinical studies and RCT	Not validated

Beattie score <sup>4</sup> (1996)	Prospective study	Numerical grading system generating a total score (0-15) composed of severity scores (0-3) for each colonic segment (ascending, transverse, descending, sigmoid and rectum): <i>(0) Quiescent (1) Mild (2) Moderate (3) Severe</i>	Some clinical studies	Not validated
Endoscopic Clinical Correlation Index (ECCI) <sup>5</sup> (2005)	Prospective study	Numerical grading system generating a total score (0-30) based on two separate severity scores (Presence of active lesions and mucosal fragility) assessed at each colonic segment (rectum, sigmoid, descending, transverse, ascending colon and caecum): <b>a) Presence of active lesions:</b> (0) none, (1) hyperaemia & edema, (2) erosions, (3) ulcers <b>b) Mucosal friability:</b> (0) normal mucosa, (1) bleeding to instrumental traumatism, (2) spontaneous bleeding	Some clinical trials	Not validated
Endoscopic Activity Index (EAI) <sup>6</sup> (2010)	Prospective study	Numerical grading system generating a total score (0-16) composed of 6 variable sub-scores: <b>a) Size of ulcers:</b> (0) None, (1) Erosions/small ulcers, (2) Intermediate, (3) Wide-ranged mucosal defects <b>b) Depth of ulcers:</b> (0) None, (1) Shallow, (2) Intermediate, (3) Deep <b>c) Redness:</b> (0) None, (1) Mild, (2) Marked <b>d) Bleeding:</b> (0) None, (1) Contact bleeding, (2) Spontaneous bleeding, (3) Massive bleeding <b>e) Mucosal oedema:</b> (0) None, (1) Mild, (2) Moderate, (3) Severe <b>f) Mucous exudate:</b> (0) None, (1) Mild, (2) Marked	Multiple clinical studies and RCT	Not validated
UCCIS <sup>7,8</sup> (2012)	Prospective study	Numerical score derived by entering the individual grade of four descriptors into a formula (3.1 x vascular pattern + 3.6 x granularity + 3.5 x ulceration+ 2.5 x bleeding/friability) <b>Descriptors:</b> <b>a) Vascular pattern</b>	Some clinical trials	Validated

		<p>(0) Normal, (1) partially visible, (2) complete loss</p> <p><b>b) Granularity</b></p> <p>(0) Normal, (1) Fine, (2) Course</p> <p><b>c) Ulceration</b></p> <p>(0) Normal, (1) Erosions, (2) Shallow, (3) Deep, (4) Diffuse, &gt;30% deep</p> <p><b>d) Bleeding/friability</b></p> <p>(0) Normal, (1) Friability, (2) Spontaneous bleeding</p>		
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Reference:

1. van der Heide H, Mulder C, Wiltink E. Comparison of Enemas Containing Beclomethasone-Di-Propionate (BDP) or Prednisolone 21-Phosphate (PF) in the Treatment of Distal Ulcerative Colitis. *Gastroenterology*. 1987 1987;92, No. 5, Part 2:A1679.
2. Rachmilewitz D. Coated mesalazine (5-aminosalicylic acid) versus sulphasalazine in the treatment of active ulcerative colitis: a randomised trial. *BMJ (Clinical research ed)* [Internet]. 1989; 298(6666):[82-6 pp.]. Available at: <http://onlinelibrary.wiley.com/o/cochrane/clcentral/articles/291/CN-00058291/frame.html>.
3. Hanauer S, Kane S, Guernsey B. Randomized Clinical Trial of Mesalamine (5-ASA) Enemas in Distal Ulcerative Colitis: A Dose-Ranging Placebo Controlled Study. *Gastroenterology*. 1989 1989;96, No. 5, Part 2:A195.
4. Beattie RM, Nicholls SW, Domizio P, Williams CB, Walker-Smith JA. Endoscopic assessment of the colonic response to corticosteroids in children with ulcerative colitis. *J Pediatr Gastroenterol Nutr*. 1996 May;22(4):373-9.

5. Azzolini F, Pagnini C, Camellini L, Scarcelli A, Merighi A, Primerano AM, et al. Proposal of a new clinical index predictive of endoscopic severity in ulcerative colitis. *Dig Dis Sci.* 2005 Feb;50(2):246-51. Epub 2005/03/05. eng.
6. Naganuma M, Ichikawa H, Inoue N, Kobayashi T, Okamoto S, Hisamatsu T, et al. Novel endoscopic activity index is useful for choosing treatment in severe active ulcerative colitis patients. *J Gastroenterol.* 2010 Sep;45(9):936-43. Epub 2010/04/20. eng.
7. Neumann H, Neurath MF. Ulcerative colitis: UCCIS - A reproducible tool to assess mucosal healing [(Neumann, Neurath) Department of Medicine I, University of Erlangen-Nuremberg, Ulmenweg 18, 91054 Erlangen, Germany]. United Kingdom: Nature Publishing Group (Hounds mills, Basingstoke, Hampshire RG21 6XS, United Kingdom); 2012 [updated 2012//]. 12:[692-4]. Available at:  
<http://ovidsp.ovid.com/ovidweb.cgi?T=JS&PAGE=reference&D=emed10&NEWS=N&AN=2012716426>.
8. Samuel S, Bruining DH, Loftus EV, Jr., Thia KT, Schroeder KW, Tremaine WJ, et al. Validation of the ulcerative colitis colonoscopic index of severity and its correlation with disease activity measures. *Clin Gastroenterol Hepatol.* 2013 Jan;11(1):49-54 e1. Epub 2012/08/21. eng.