Supplementary table 2. Stepwise and comparative-grade endoscopic scoring systems for ulcerative colitis.

Index	Setting	Description of Scale	Extent of Use	Level of Validation
Truelove and Witts sigmoidoscopic assessment[1] (1955)	Prospective study	Comparative 3-grade scale: *(1) Normal or near normal (slight hyperaemia or slight granularity)* *(2) Improved* *(3) no change or worse*	Some clinical studies	Not validated
Truelove and Richards sigmoidoscopic appearance[2] (1956)	Prospective, case-controlled series study	Comparative 3-grade scale: *(1) Normal appearances* *(2) Mild and Moderate Activity: mild hyperaemia, granularity, few petechiae. More advanced changes – well-marked hyperaemia, increased fragility of the mucosa, sometimes ulceration but without features being as marked as severe* *(3) Intense hyperaemia, marked fragility of the mucosa with oozing blood spontaneously or with very slight trauma, presence of exudate and mucopus. Gross ulceration*	Some clinical studies	Not validated
Matts score[3] (1961)	Prospective study	Stepwise 4-grade scale: *(1) Normal* *(2) Mild granularity of the mucosa with mild contact bleeding* *(3) Marked granularity and oedema of the mucosa, contact bleeding and spontaneous bleeding* *(4) Severe ulceration of mucosa with haemorrhage*	Multiple clinical studies and RCT	Partially validated
Baron score[4] (1964)	Prospective study	Stepwise 4-grade scale: *(0) Normal* *(1) Abnormal but not haemorrhagic: appearances between "0" and "2"* *(2) Moderately haemorrhagic: bleeding to light touch but no spontaneous bleeding* *(3) Severely haemorrhagic: spontaneous bleeding*	Multiple clinical studies and RCT	Not validated
Dick score[5] (1966)	Prospective study	Stepwise 5-grade scale: *(0) Normal* *(1) Quiescent* *A pink finely granular abnormal mucosa, in which the vessels were not visible or only visible in places* *(2) Slightly active*	Some clinical trials	Not validated

		A somewhat reddened, oedematous and abnormally friable mucosa *(3) Very active* *A very reddened, oedematous and friable mucosa, often with superficial ulceration and spontaneous bleeding and/or mucopus in the bowel lumen* *(4) Fulminating* *The flaming red mucosa, often partly covered with pus, of a fulminating case*		
Binder[6] (1970)	Prospective study	Stepwise 4-grade scale: *(1) Normal; smooth, shining mucosa* *(2) Slightly active: slight granularity and/or fragility* *(3) Moderately active: pronounced granularity and fragility with pus and/or blood in the lumen* *(4) Very active: pronounced granularity and fragility together with visible ulcerations*	Some clinical studies	Not validated
Powell-Tuck Index[7] (1982)	Retrospective study	Stepwise 3-grade scale: *(0) Non-hemorrhagic* (no bleeding spontaneously or light touch) *(1) Hemorrhagic (bleeding on light touch but no spontaneous bleeding ahead of instrument)* *(2) Hemorrhagic (spontaneous bleeding seen ahead of instrument at initial inspection with bleeding on light touch)*	Some clinical studies	Partially validated
Blackstone endoscopic grading activity[8] (1984)	Prospective study	8-point scale: **a) Quiescent:** *(1) Distorted or absent mucosal vascular* pattern *(2) Granularity* **b) Mildly active:** *(1) Continuous or focal erythema* *(2) Friability (touch bleeding)* **c) Moderately active:** *(1) Mucopurulent exudate (mucopus)* *(2) Single or multiple ulcers (<5mm), fewer than 10 per 10-cm segment* **d) Severe colitis:** *(1) Large ulcers (>5mm): more than 10 per 10-cm segment* *(2) Spontaneous bleeding*	Some clinical studies	Not validated
Saverymuttu[9] (1986)	Prospective study	Stepwise 4 grade scale: (0) Normal appearance (1) Loss of vessel pattern or edema (2) Contact hemorrhage	Some clinical studies	Not validated

		(3) Ulceration or surface mucopus		
Friedmann Score[10] (1986)	Randomized controlled study	Stepwise 5-grade scale: *(0) Normal* *(1) Erythema* *(2) Friability (contact bleeding)* *(3) Spontaneous bleeding and exudate* *(4) Frank ulceration*	Some clinical studies	Not validated
Sutherland index (DAI or UCDAI)[11] (1987)	Randomized-controlled study	Stepwise 4-grade scale: (*0) Normal* *(1) Mild friability* *(2) Moderate friability* *(3) Exudation, spontaneous hemorrhage*	Multiple clinical studies and RCT	Not validated
McPhee proctoscopic grading scale[12] (1987)	Prospective study	Stepwise 4-grade scale: *(0) Normal; chronic changes may be present, ie, patchy erythema; no friability* *(1) Erythema; edema (loss of vascular pattern); minimal friability* *(2) Marked edema and erythema; friability; small amount of exudate or pus* *(3) Spontaneous bleeding; ulceration; gross pus and mucus*	Some clinical studies	Not validated
Danielsson-Löfberg score[13, 14] (1987)	Prospective RCT and Randomized, double-blind, prospective, pilot study	Mean scoring system (0-3) generated by averaging the scores of each colonic segment assessed (ascending, transverse, descending, sigmoid and rectum): *(0) Normal/non-inflamed mucosa* *(1) Granularity, edema and lack of normal vascular pattern* *(2) Hyperemia, friability and petechiae (and all of score 1)* *(3) Ulcerations (and all of score 1 and 2)*	Some clinical studies	Not validated
Maier[15] (1988)	Prospective study	Stepwise 4-grade scale: (*0) No visible pathological change* *(1) hyperemia, lack of the typical vascular pattern* *(2) contact bleeding* *(3) Mucous, plaques of fibrin, blood, ulcers*	Some clinical studies	Not validated
Carbonnel score[16] (1994)	Retrospective study	Stepwise 2-grade scale: *Moderate: Erythematous/swollen mucosa, superficial ulcerations, deep/non-extensive ulcerations* *Severe: Deep extensive ulcerations, well-like ulcerations, large mucosal abrasions, mucosal detachment*	Some clinical studies	Not validated
Sigmoidoscopic Inflammation	Randomized, double-blind,	Stepwise 4-grade scale: *(0) Normal mucosa*	Some clinical trials	Not validated

Grade Score[17] (Lemann) (1995)	comparative, single centre study	*(1) Granularity, oedema, lack of normal vascular pattern* *(2) Hyperaemia, friability, petechiae* *(3) Ulceration*		
Lindgren score[18, 19] (2001)*	Randomized, double-blind, prospective study	Stepwise 4-grade scale: (*0) No visible signs of inflammation* *(1) Granularity, edema, lack of normal vascular pattern* *(2) Hyperaemia, friability, petechie and all of score 1* *(3) Ulcerations and all of score 2*	Some clinical studies	Not validated
Sigmoidoscopic grade (Levine)[20] (2002)	Randomized, double-blind, prospective study	Stepwise 4-grade scale: *(0) Normal – normal mucosa* *(1)Mild – edema, loss of vascular pattern, fine granularity without ulceration* *(2) Moderate – friability, petechiae, coarse granularity with pinpoint ulceration* *(3) Severe – Visible ulcers, spontaneous bleeding*	Some clinical trials	Not validated
Simple 5-point score (Rutter)[21] (2004)	Retrospective study	Stepwise 5-grade scale: *(0) Entirely normal appearance* *(1) Quiescent disease (mild edema or chronic features, but no active inflammation)* *(2) Mild active inflammation* *(3) Moderate active inflammation* *(4) Severe active inflammation*	Some clinical trials	Not validated
Modified Baron score (Feagan)[22] (2005)	Prospective study	Stepwise 5-grade scale: *(0) Normal, smooth, glistening mucosa, with vascular pattern visible; not friable* *(1) Granular mucosa; vascular pattern not visible; not friable; hyperaemia* *(2) As 1, with a friable mucosa, but not spontaneously bleeding* *(3) As 2, but mucosa spontaneously bleeding* *(4) As 3, but clear ulceration; denuded mucosa*	Multiple clinical studies and RCT	Partially validated
Froslie endoscopic score[23] (2007)	Prospective study	Stepwise 3-grade scale: *(0) Normal* *(1) Light erythema or granularity* *(2) Granularity, friability and bleeding, with or without the addition of ulceration*	Some clinical studies	Not validated
Osada Modified 6-point Activity Index[24]	Retrospective study	Stepwise 6-grade scale: *(1) Normal or inactive disease. ramifying vascular pattern clearly visible* *(2) Mild erythema, decreased vascular*	Some clinical studies	Partially validated

(2010)		*pattern* *(3) Marked erythema, absent vascular pattern. Edema, friability or granularity of mucosa.* *(4) Erosions, small ulcer with regenerating epithelium (<4 mm)* *(5) Active ulcers, fewer than 10 per 10-cm segment* *(6) Multiple and deep ulcers, more than 10 per 10-cm segment (>5 mm)*		

*Modification of the Danielsson-Löfberg score.

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