Supplementary Table 1 PubMed literature search strategy

Search number	Search terms	Number of articles
Small bowel capsule endoscopy		
#1	(((small bowel capsule endoscopy[Title]) OR wireless capsule endoscopy[Title]) OR capsule endoscopy[Title]) OR video capsule endoscopy[Title]	2262
Crohn's disease		
#2	((((inflammatory bowel disease[Title]) OR crohn's disease[Title]) OR crohn[Title]) OR enteritis[Title]) OR ileitis[Title]	45772
Treat-to-target strategy		
#3	((((((((((((((treat to target[Title/Abstract]) OR treat-to-target[Title/Abstract]) OR T2T[Title/Abstract]) OR surveillance[Title/Abstract]) OR monitoring[Title/Abstract]) OR monitor[Title/Abstract]) OR target[Title/Abstract]) OR goal[Title/Abstract]) OR objective[Title/Abstract]) OR therapeutic management[Title/Abstract]) OR management[Title/Abstract]) OR postoperative[Title/Abstract]) OR post-operative[Title/Abstract]) OR recurrence[Title/Abstract]) OR endoscopic remission[Title/Abstract]) OR remission[Title/Abstract]) OR mucosal healing[Title/Abstract]	5026042
Publication date		
#4	("2000/01/01"[Date - Publication] : "3000"[Date - Publication]))	-
Publication language		
#5	english[Language])	-
Exclusions		
#6	NOT animal) NOT animals	-
Total		
#1 AND #2 AND #3 AND #4 AND #5 NOT #6	((((((((((small bowel capsule endoscopy[Title]) OR wireless capsule endoscopy[Title]) OR capsule endoscopy[Title]) OR video capsule endoscopy[Title])) AND (((((inflammatory bowel disease[Title]) OR crohn's disease[Title]) OR crohn[Title]) OR enteritis[Title]) OR ileitis[Title])) AND ((((((((((((((treat to target[Title/Abstract]) OR treat-to-target[Title/Abstract]) OR T2T[Title/Abstract]) OR surveillance[Title/Abstract]) OR monitoring[Title/Abstract]) OR monitor[Title/Abstract]) OR target[Title/Abstract]) OR goal[Title/Abstract]) OR objective[Title/Abstract]) OR therapeutic management[Title/Abstract]) OR management[Title/Abstract]) OR postoperative[Title/Abstract]) OR post-operative[Title/Abstract]) OR recurrence[Title/Abstract]) OR endoscopic remission[Title/Abstract]) OR remission[Title/Abstract]) OR mucosal healing[Title/Abstract])) AND ("2000/01/01"[Date - Publication] : "3000"[Date - Publication])) AND english[Language]) NOT animal) NOT animals	**107**

Supplementary Table 2 Studies assessing the indexes used to describe Crohn's disease lesions at small bowel capsule endoscopy

Reference	Study design	Patient population	Index	Objective	Results
Gralnek *et al*[25], 2007	Prospective, blinded	34 patients: 12 known CD 12 known NSAID enteropathy 10 unclassified small bowel mucosal breaks	Lewis score	To develop a scoring index for small bowel mucosal inflammatory change	The final index includes three parameters: villous oedema, ulcer and stenosis. Score < 135: normal 135 ≤ score < 790: mild ≥ 790: moderate to severe.
Cotter *et al*[26], 2014	Retrospective, blinded	70 patients with known isolated SB CD	Lewis score	To validate the Lewis score by assessing interobserver correlation and level of agreement in a clinical setting between the investigators and a central reader	Interobserver agreement almost perfect between the investigators and the central reader: First tertile ICC = 0.788–0.971, second tertile ICC = 0.824–0.943, third tertile ICC = 0.857–0.968, global score ICC=0.852–0.960; (*P* < **0.0001**) Level of agreement in a clinical setting: Score<135 in 2.9% vs. 2.9% 135≤score<790 in 51.4% vs. 55.7% Score≥790 in 45.8% vs. 41.4% (*P* < **0.001**)
Rosa *et al*[27], 2012	Retrospective, blinded (automatic calculation of the Lewis score)	56 patients with suspected CD: Group 1 (*n* = 28): no ICCE criteria Group 2 (*n* = 19): 2 ICCE criteria Group 3 (*n* = 9): ≥ 3 ICCE criteria	Lewis score	To evaluate if the Lewis score may be useful as a diagnostic tool for patients with suspected CD	LS ≥135: 23/56 (41.1%), 5 from Group 1 (17.8%), 11 from Group 2 (57.9%), 7 from Group 3 (77.8%) (*P* < **0.05**). CD diagnosed in 23/56 (41.1%), 6 from Group 1 (21.4%), 10 from Group 2 (52.6%), 7 from Group 3 (77.8%) (*P* < **0.05**). CD diagnosed in 82.6% of patients with LS≥135 vs. 12.1% of those having a LS<135 (*P* < **0.05**). LS: PPV 82.6%, NPV 87.9%, Se 82.6% and Sp 87.9%.
Kopylov *et al*[32], 2016	Prospective	Patients with known SB CD in remission or experiencing mild disease symptoms, as determined by a CDAI of < 220	Lewis score vs. MaRiA and Clermont indexes	To compare the quantification of distal SB inflammation by VCE and MRE activity indices	Both MaRIA and Clermont scores significantly correlated with LS (r=0.50, *P* = **0.001** and r=0.53, *P* = **0.001**, respectively). Both MaRIA and Clermont scores significantly lower in patients with LS<135. AUC with both MRE scores moderate for prediction of LS⩾135 and excellent for prediction of LS⩾790 (0.71 and 0.74 vs. 0.93 and 0.91 for MaRIA and Clermont score, respectively).
He *et al*[33], 2017	Retrospective, blinded	150 patients with known SB CD	Lewis score	To explore the correlations between LS and HBI, CRP, SBTT	Weak correlations between LS and HBI (r=0.213, *P* = **0.019**), SBTT (r=0.237, *P* = **0.009**). Moderate correlation between LS and CRP (r=0.326, *P* < **0.001**).

Gal *et al*[28], 2008	Retrospective, blinded	20 patients with known CD	CECDAI	To develop and validate a scoring index in order to grade the severity of SBCE findings	The CECDAI total scores for the 20 patients ranged from 0 to 26. Correlation between two observers=0.867 (P < **0.0001**).
Niv *et al*[29], 2012	Prospective, blinded	50 patients with known isolated SB CD	CECDAI	To prospectively validate the use of the CECDAI in daily practice	Overall correlation r=0.767 between the site investigators and the principal investigator, with range from the different sites of 0.717–0.985 (Kappa=0.66, P < **0.001**). No correlation between CDAI nor IBDQ and the CECDAI.
Koulaouzidis *et al*[30], 2012	Retrospective, LS and CECDAI calculated by a single reviewer blinded to FC results	49 patients with known CD: Group A (n = 16): FC < 100 µg/g Group B (n = 12): 100 ≤ FC < 200 Group C (n = 21): FC ≥ 200 µg/g	Lewis score and CECDAI	To assess the performance of Lewis score and CECDAI by correlating them with FC, and to define threshold levels for CECDAI	Correlation of FC with LS (r=0.448, P = **0.001**), especially in group A (r=0.680, P = **0.005**) but not with CECDAI (r=0.245, P = 0.089). Significant correlation between LS and CECDAI (r=0.632, P < **0.0001**). LS thresholds of 135 and 790 correspond with CECDAI levels of 3.8 and 5.8, respectively.
Yablecovitch *et al*[31], 2018	Retrospective, blinded	50 patients with known SB CD in clinical remission or mild disease (CDAI < 250)	Lewis score and CECDAI	To evaluate the correlation between LS and CECDAI, and the correlation of both indexes with FC and CRP	Moderate correlation between the worst segment LS and CECDAI (r=0.66, P = **0.001**). Strong correlation between total LS and CECDAI (r=0.81, P = **0.0001**). CECDAI<5.4 corresponds to LS<135, CECDAI>9.2 corresponds to LS⩾790. Moderate correlation between CE scores and FC (r=0.48, P = **0.001** for total LS, and r=0.53, P = **0.001** for CECDAI). CRP not significantly correlated with either score.

AUC: Area under the curve; CD: Crohn's disease; CDAI: Crohn's disease activity index; CECDAI: Capsule Endoscopy Crohn's Disease Activity Index; CRP: C-reactive protein; FC: Fecal calprotectin; HBI: Harvey Bradshaw index; IBDQ: Inflammatory bowel disease questionnaire; ICC: Intraclass correlation; ICCE: International Conference on Capsule Endoscopy; LS: Lewis score; MRE: Magnetic resonance enterography; NPV: Negative Predictive Value; NSAID: Nonsteroidal anti-inflammatory drugs; PPV: Positive Predictive Value; SB: Small bowel; SBCE: Small bowel capsule endoscopy; SBTT: Small bowel transit time; Se: Sensitivity; Sp: Specificity.