

Conclusions: Preliminary definitions for response to treatment using the UC-PRO/SS are a reduction of ≥ 1.5 points in the functional domain or ≥ 5 points in the bowel domain. These cut-offs will be confirmed in the ongoing Phase 3 UC placebo-controlled studies.

References

- Higgins PDR, Harding G, Revicki DA, et al., (2017), Development and validation of the ulcerative colitis patient-reported outcomes signs and symptoms (UC-pro/SS) diary, J Patient Rep Outcomes, 26

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Day of admission results predict failure of first-line treatment in acute ulcerative colitis

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Background: Intravenous (IV) steroids remain the standard first-line treatment for patients admitted with acute ulcerative colitis (UC). However, 30% of patients fail to respond and require second-line therapies and/or surgery. The purpose of this study was to determine whether Day 1 parameters could identify a group at high risk of failing first-line therapies.

Methods: All admissions for acute UC (ICD-10 K51) to hospitals in NHS Lothian (4 sites) and St Mark's Hospital, Harrow from 1/11/11 to 31/10/16 were obtained from the regional coding departments. Case record review was performed. Response to IV steroids was defined as discharge from hospital with no further acute medical or surgical treatment. Non-response was defined as need to escalate to ciclosporin, infliximab, other acute therapy, or to have surgery. The following parameters were recorded for the first 10 days post admission: haemoglobin (Hb), platelet count, CRP, albumin, stool frequency and faecal calprotectin. Each patient was later attributed a score based on CRP (≤ 50 mg/dl = 0; >50 mg/dl = 1), albumin (≥ 30 g/l = 0; < 30 g/l = 1) and platelets ($\leq 400 \times 10^9/l = 0$; $>400 \times 10^9/l = 1$).

Results: In total, 592 admissions with acute UC were identified; 391/592 (66%) responded to steroids, 201/592 (34%) patients were non-responders. 44 (22%) non-responders received infliximab as second-line therapy, 108 (54%) cyclosporine, and 4 (2%) other. Eighty-three (41%) non-responders required surgery; 7 (8%) had infliximab prior to surgery; 35 (42%) cyclosporine; 12 (14%) went straight to surgery. Insufficient data were available regarding 33 patients.

On univariate analysis, albumin ($p = <0.001$), platelet count ($p = 0.004$) and CRP ($p = <0.001$) were significantly different between responders and non-responders. On multi-variate analysis platelets were not significant. No difference was seen for Hb or stool frequency. 64.3% of patients with concurrent hypoalbuminaemia, high CRP and high platelets (score = 3) were non-responders.

Table 1. Day one results.

	Platelets ($\times 10^9/L$)		CRP (mg/dL)		Albumin (g/L)	
	Responders (n=372)	Non-responders (n=187)	Responders (n=359)	Non-responders (n=179)	Responders (n=340)	Non-responders (n=180)
Median	343	381	26	56	36	31
p value	0.004		<0.001		<0.001	

Table 2. Patient scoring.

Score	No. of patients	Responders (%)	Non-responders (%)
0	190	149 (78.4)	41 (21.6)
1	176	124 (70.5)	52 (29.5)
2	82	40 (48.8)	42 (51.2)
3	56	20 (35.7)	36 (64.3)

Conclusions: A third of patients failed to respond to IV steroids. Day of admission albumin, CRP and platelets significantly predicted failure of first-line therapy. 64.3% of patients with a score of 3 failed first-line medical therapy. The combination of these readily available parameters identifies a high-risk population who may benefit from earlier second-line medical or surgical intervention.

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Systematic review with meta-analysis of individual data: impact of cut-off values on the performance of faecal calprotectin to detect endoscopic recurrence after intestinal resection in patients with Crohn's disease

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Background: Endoscopic assessment of post-operative recurrence (ePOR) is recommended within 1 year after ileocaecal resection (ICR) for Crohn's disease (CD) as it accurately predicts clinical course and guides medical management. However, endoscopy is an invasive procedure and a frequent endoscopic monitoring is not feasible in routine care. Although faecal calprotectin (FC) has been studied and validated as a useful tool in CD in several settings, it is still not well defined how thresholds impact the performance of FC to detect ePOR. In this meta-analysis including cohort studies of CD patients who underwent intestinal resection, we aimed to determine how cut-off values influence the performance of the FC to detect ePOR.

Methods: A systematic search using PubMed and EMBASE databases was performed independently by two authors. The search strategy used the following terms: calprotectin, Crohn's, Ileocaecal, postop*, intestinal resection. Studies performed in adult patients with CD who underwent intestinal resection, in which FC (expressed in $\mu\text{g/g}$) was evaluated as a surrogate marker of ePOR (defined as a Rutgeerts score $\geq i2$ or $i2b$) were included. The extracted data were pooled using a hierarchical summary receiver-operating curve model. We assessed the sensitivity, specificity and positive and negative likelihood ratios for FC cut-offs ranging from 10 $\mu\text{g/g}$ to 500 $\mu\text{g/g}$.

Results: A total of 158 titles and abstracts were identified. After selection, 11 studies remained for further analysis. A total of 892 patients were included, among whom 421 (47.2%) developed ePOR. Eight studies were designed as cross-sectional studies with