INTRODUCTION:
Lewis Score (LS) is one of the 2 inflammatory scores in small-bowel capsule endoscopy (SBCE). In a previous paper [1], we showed that LS shows only a moderate correlation with faecal calprotectin (FC) levels. The amount of calprotectin in faeces is directly proportional to the granulocyte migration to the gut mucosa and cell shedding in the intestinal lumen. Hence, FC is considered a reliable, almost a 'gold standard', marker of gastrointestinal inflammation. Interestingly, both LS and FC are not disease-specific. One of the major factors that could potentially influence the correlation between FC and LS is the time lag from stool collection and FC measurement to SBCE [2].

AIMS:
We aim to assess the correlation between the FC and LS from a cohort of patients who underwent SBCE within 7 days from a FC measurement. A two-centre retrospective study; [Edinburgh (RIE) & Malmö (SUH)].

METHODS:
SBCE and biochemistry database cross check; SBCE videos of patients who underwent SBCE no later than 7 days from a FC measurement were reviewed for LS calculation. By convention, FC<20μg/g was transform to 0. Categorical data are described as mean±SD or median(IQR). FC/LS correlation was calculated using Kendall’s tau-b rank coefficient. Furthermore, correlations of FC with each of the parameters/descriptors of LS were calculated; those with the higher tau-b values were selected and a second correlation was attempted between a "simplified LS" and FC.

RESULTS:
74 patients (55 RIE®/19 MUH; 20M/54F; mean age: 42±18.19) had a FC measurement within 7 days of their SBCE (median: 1.5; IQR: 5):
- 26 SBCE were performed with MiroCam® and 48 with PillCam®
- 69 (93.24%) SBCE were complete to caecum
- 2 capsules were delivered endoscopically in the duodenum
- Median FC level was 127.5 (IQR:280); median LS was 135 (IQR:450)
- Kendall’s correlation between FC and LS was –as previously shown[1]– only moderate (tau-b: 0.34).

- In detailed correlation sub-analysis, the strongest coefficients were between FC and summative villous score i.e. tertile 1+2+3 , summative ulcer score (tertile 1+2+3, but only ulcer number & size) and regular stenosis score at 0.21, 0.34 and 0.3, respectively.
- When the rank coefficient between the new summative "simplified LS" and FC was calculated, their correlation was at similar levels; tau-b: 0.33.

*part of this cohort of patients presented previously (ref 1).

CONCLUSION/s:
✓ LS shows only moderate correlation to FC.
✓ This seems to be an inherit limitation of LS and consideration should be given to the creation of new, composite inflammation score/index for SBCE.

REFERENCES: