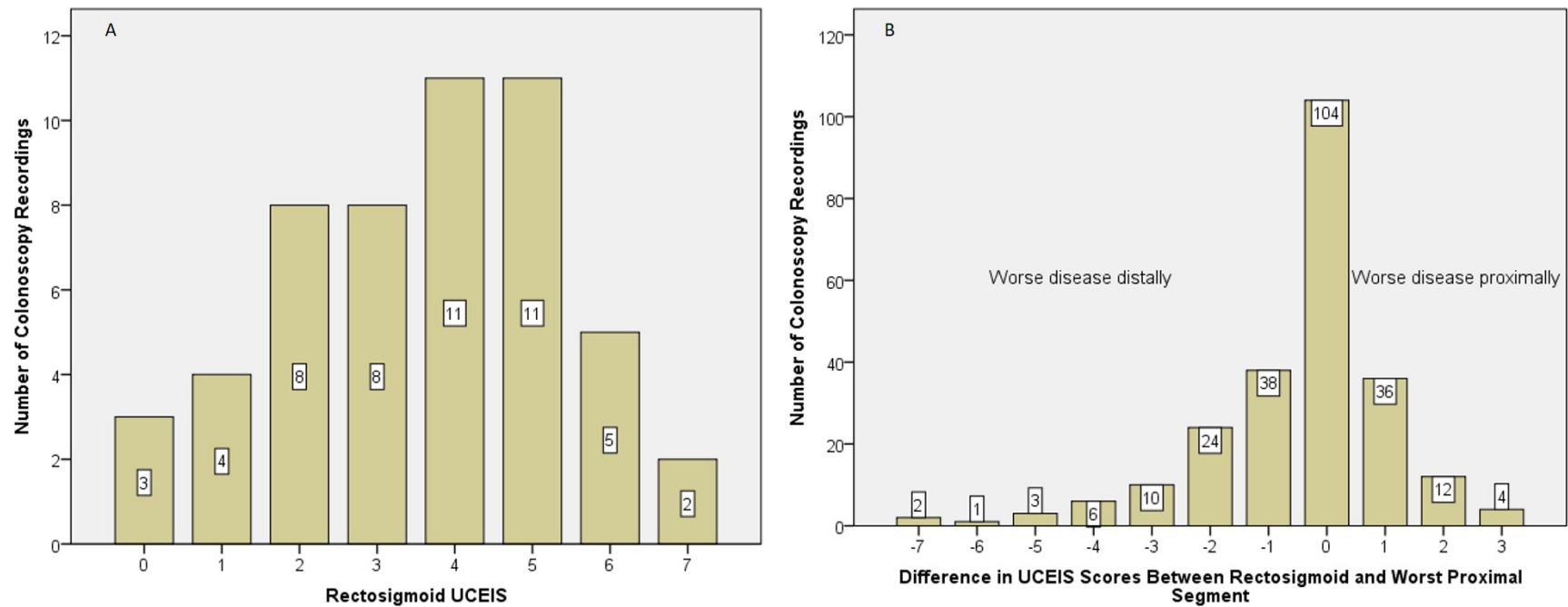


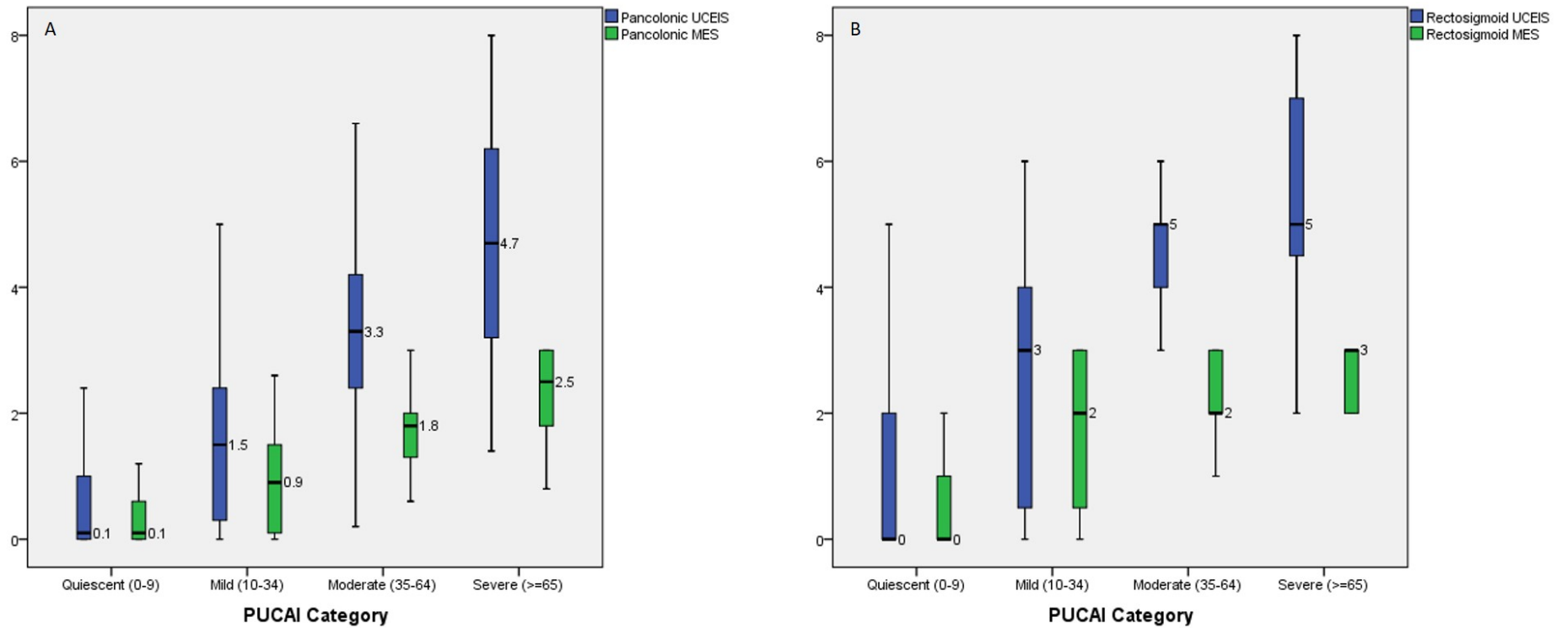
## SUPPLEMENTAL FIGURES

Supplemental Figure 1.



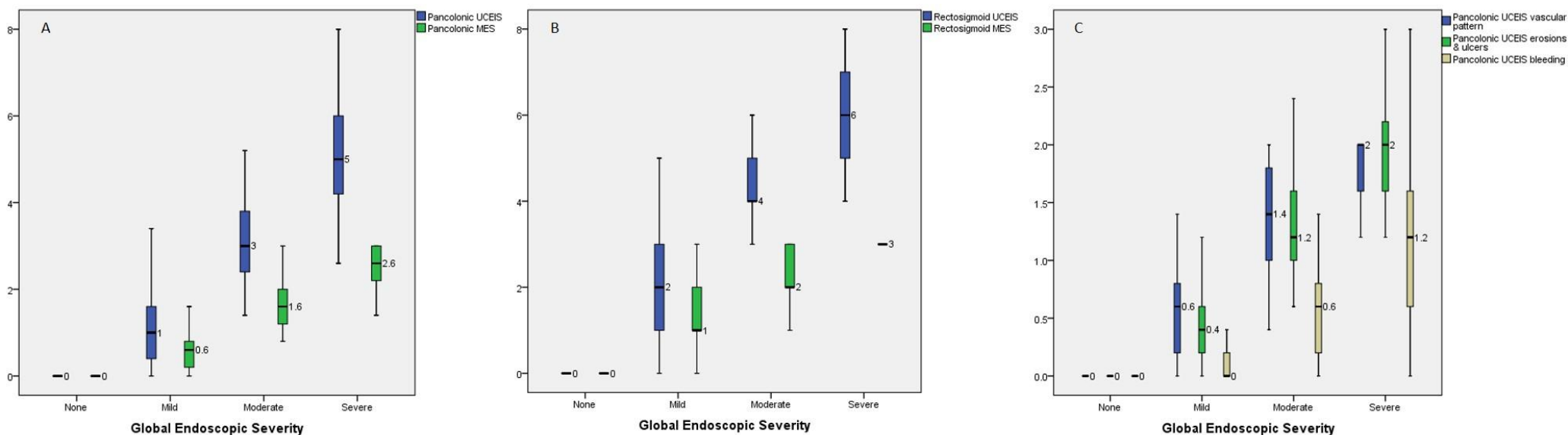
Distribution of rectosigmoid UCEIS scores for the 52 colonoscopy recordings with most severe endoscopic lesion proximal to the rectosigmoid colon (A). Difference in UCEIS scores between the rectosigmoid UCEIS and worst proximal colonic segment for all 240 colonoscopy recordings (negative numbers indicate most severe disease in the rectosigmoid colon; positive numbers indicate most severe disease proximal to rectosigmoid colon) (B).

**Supplemental Figure 2.**



UCEIS and MES vs PUCAI (A – pancolonic scores; B – rectosigmoid scores). Numbers shown are medians.  
 MES – Mayo endoscopy score; PUCAI – paediatric ulcerative colitis activity index; UCEIS – ulcerative colitis endoscopic index of severity

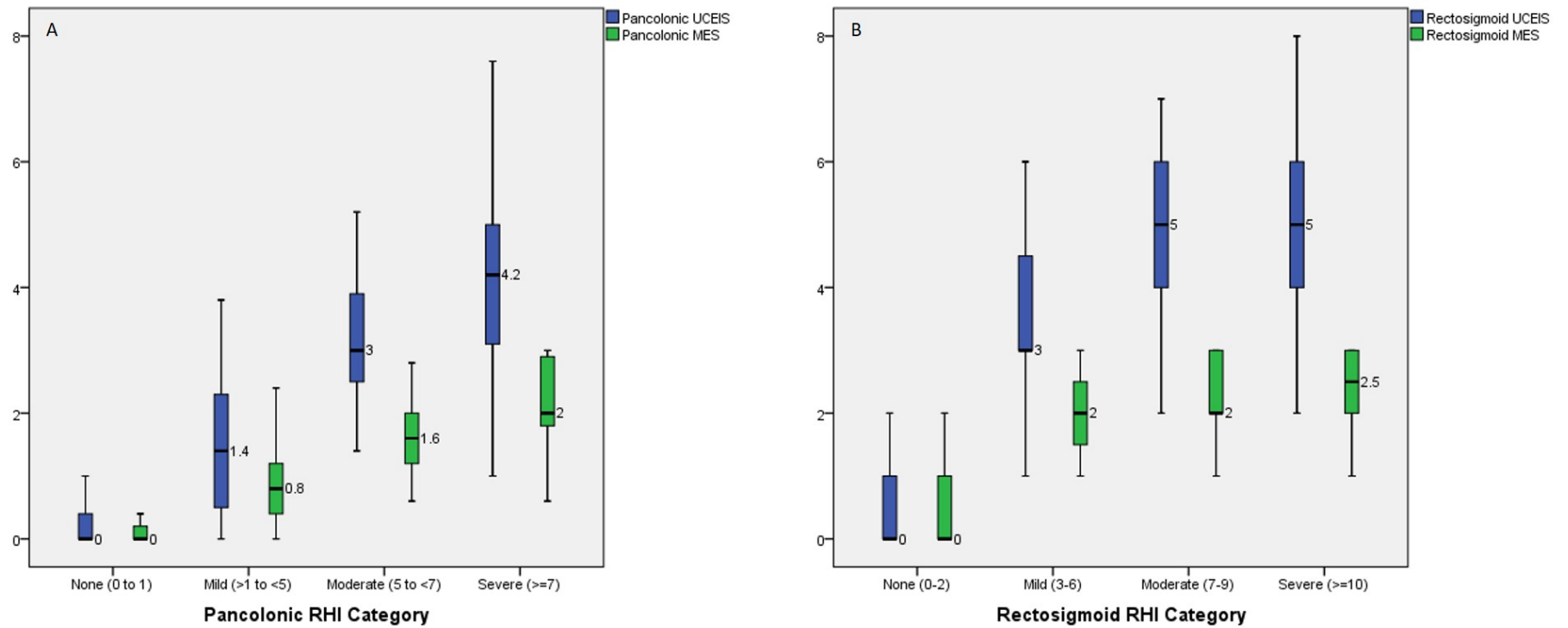
**Supplemental Figure 3.**



UCEIS and MES vs categorical MES (A – pancolonic scores; B – rectosigmoid scores; C – pancolonic UCEIS sub-items). Numbers shown are medians.

GES – global endoscopic severity; MES – Mayo endoscopy score; UCEIS – ulcerative colitis endoscopic index of severity

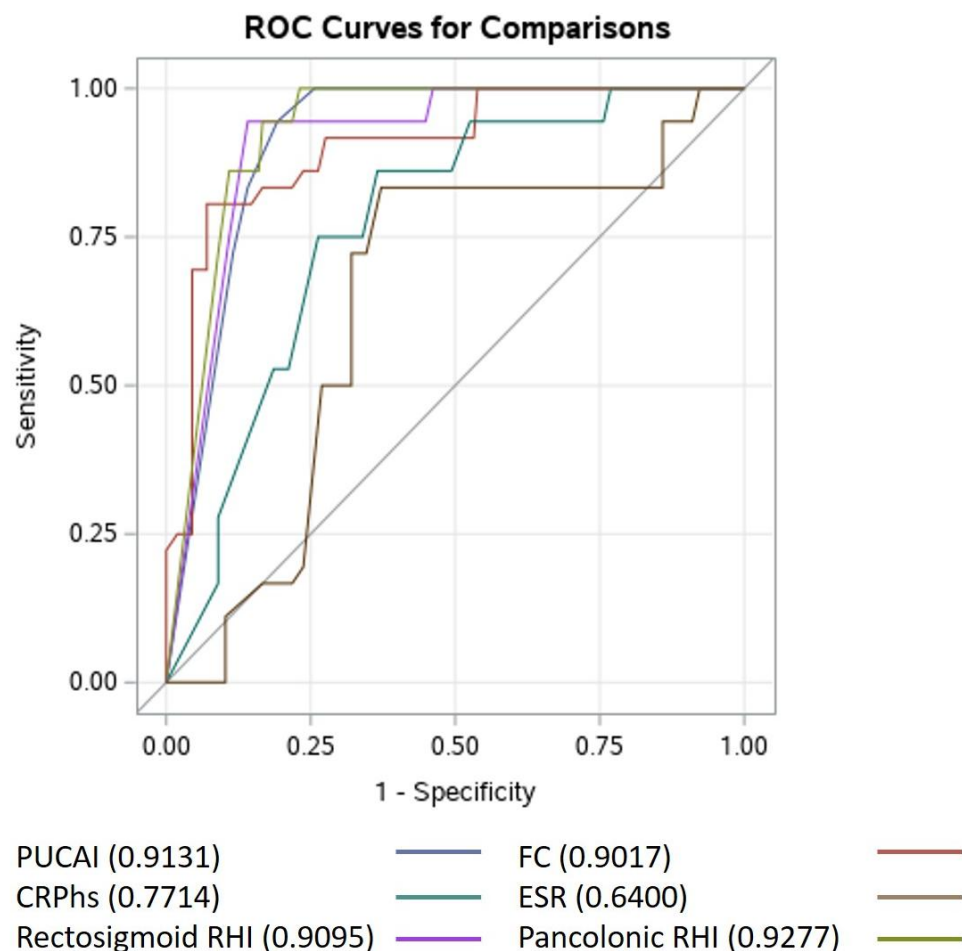
**Supplemental Figure 4.**



UCEIS and MES vs RHI (A – pancolonic scores; B – rectosigmoid scores). Numbers shown are medians.

MES – Mayo endoscopy score; RHI – Robarts Histopathology Score; UCEIS – ulcerative colitis endoscopic index of severity

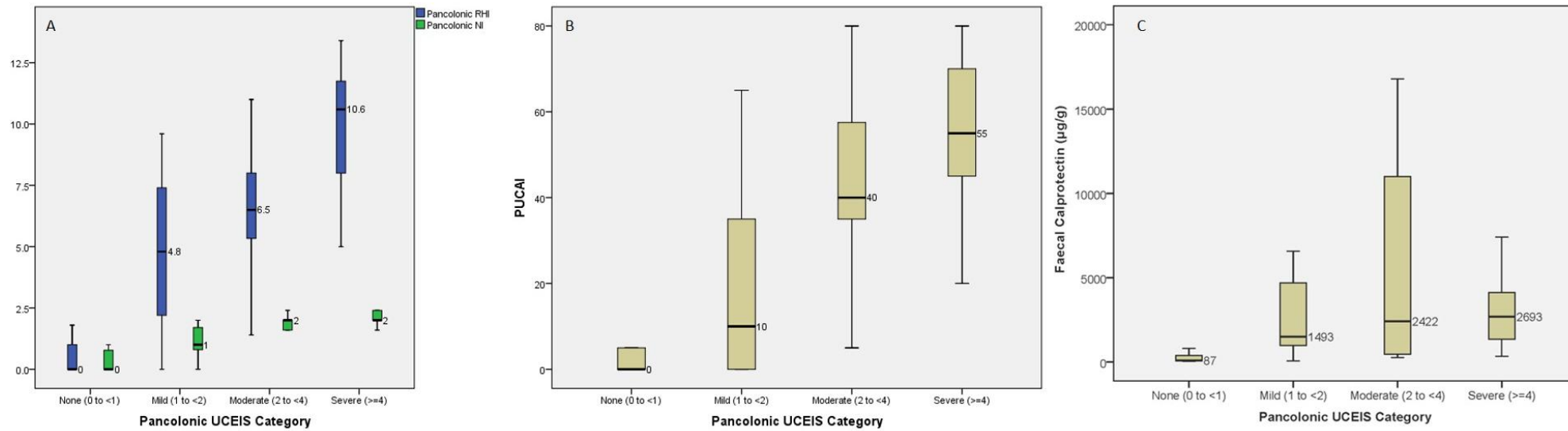
**Supplemental Figure 5.**



Accuracy of various markers for pancolonics endoscopic healing (pancolonics UCEIS score of 0). The optimal FC cut-off for a pancolonics UCEIS score of 0 was 281  $\mu\text{g/g}$  (sensitivity 82%, specificity 92%). At this cut-off, sensitivity and specificity for pancolonics histologic remission were 75% and 95%, respectively. Composite markers including FC and either PUCAI or CRPhs were highly specific for endoscopic healing; FC <250  $\mu\text{g/g}$  and PUCAI <10 had sensitivity 72% and specificity 98% for pancolonics endoscopic healing, while FC <250  $\mu\text{g/g}$  and CRPhs <1.5 mg/L had sensitivity 68% and specificity 96% for pancolonics endoscopic healing.

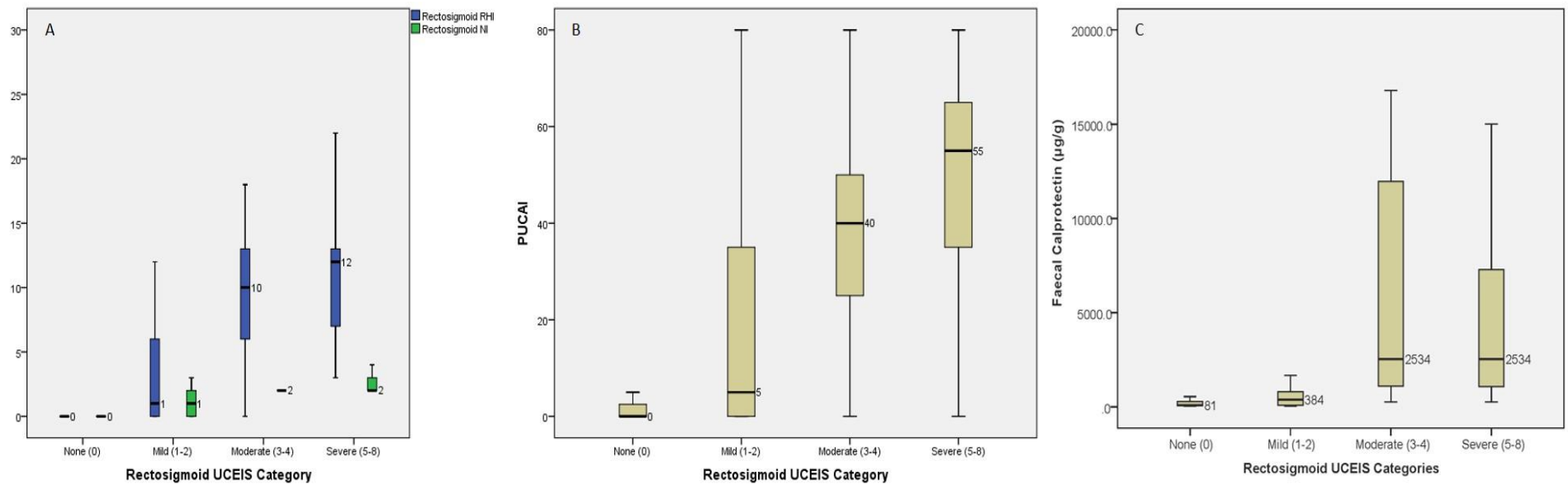
FC – faecal calprotectin; PUCAI – pediatric ulcerative colitis activity index; RHI – Robarts Histopathology Index; UCEIS – ulcerative colitis endoscopic index of severity

**Supplemental Figure 6.**



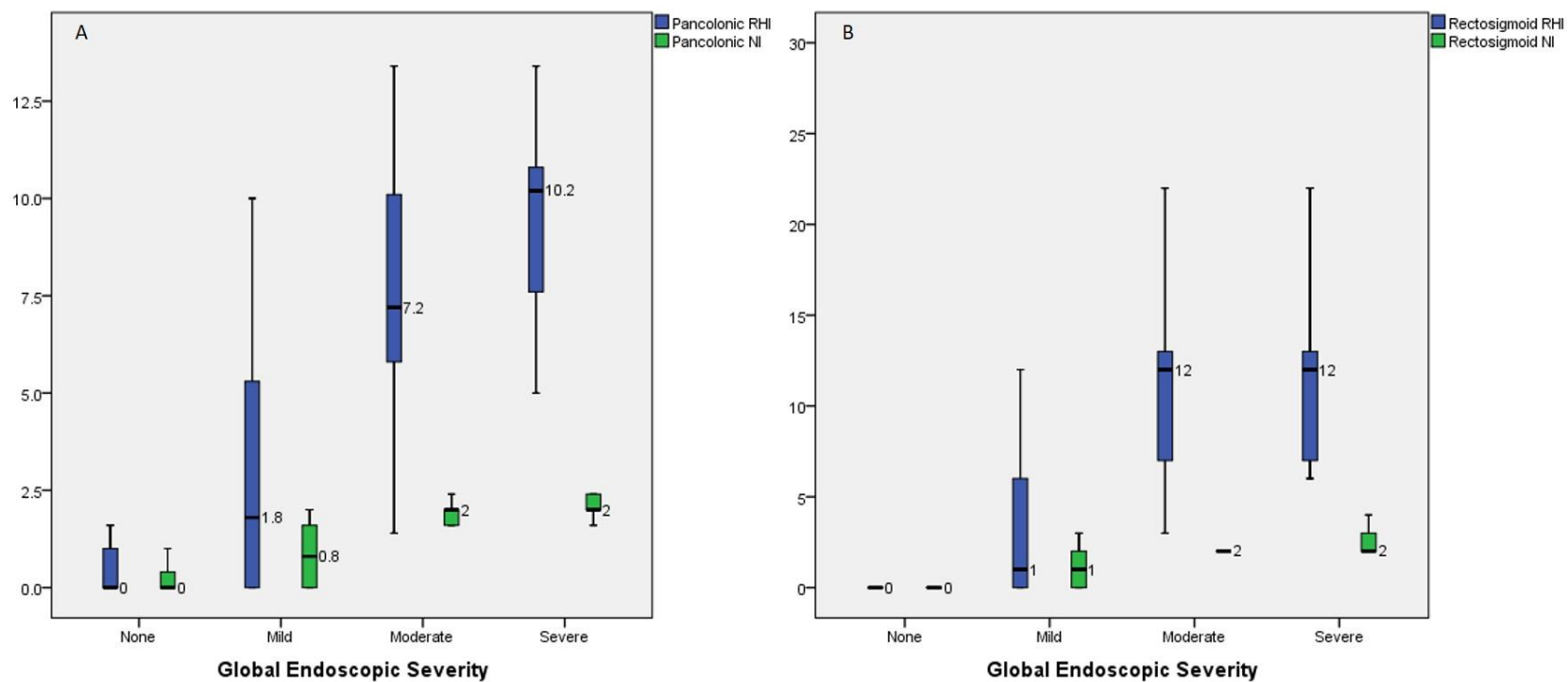
Histologic (A), clinical (B) and faecal calprotectin (C) activity in relation to pancolonic UCEIS. Numbers shown are medians.  
 NI – Nancy Index; RHI – Robarts Histopathology Index; UCEIS – ulcerative colitis endoscopic index of severity

**Supplemental Figure 7.**



Histologic (A), clinical (B) and faecal calprotectin (C) activity in relation to rectosigmoid UCEIS. Numbers shown are medians. NI – Nancy Index; RHI – Robarts Histopathology Index; UCEIS – ulcerative colitis endoscopic index of severity

**Supplemental Figure 8.**

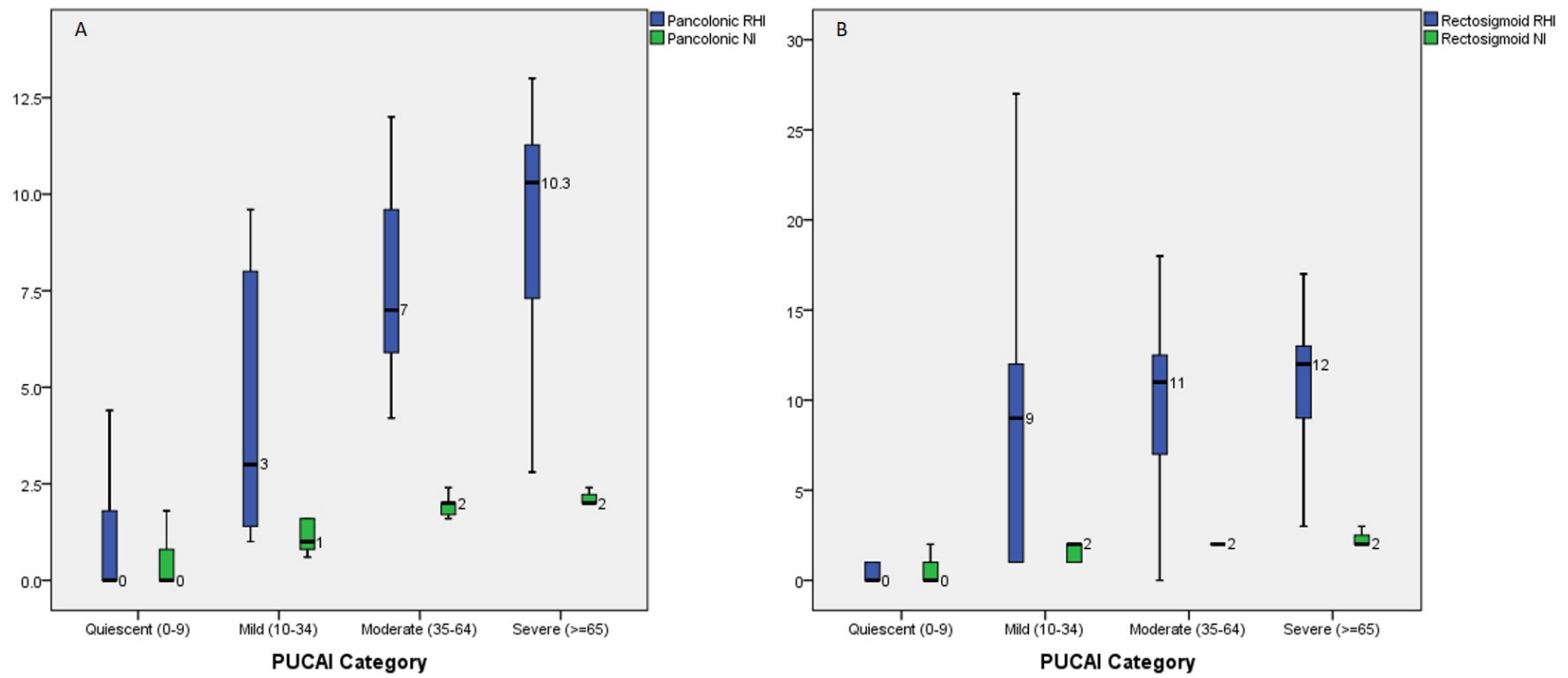


RHI

and NI vs categorical GES (A – pancolonic scores; B – rectosigmoid scores). Numbers shown are medians.  
 NI – Nancy Index; RHI – Robarts Histopathology Index



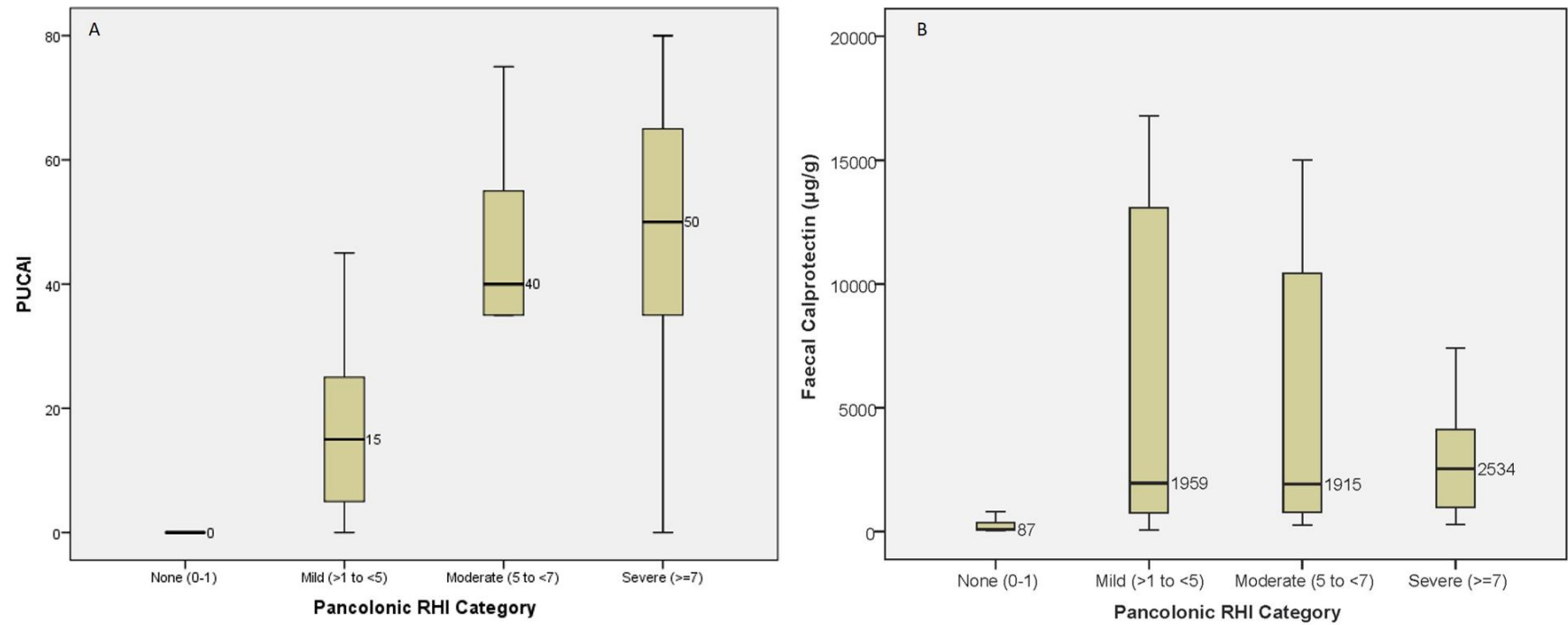
**Supplemental Figure 9.**



RHI and NI vs PUCAI (A – pancolonic scores; B – rectosigmoid scores). Numbers shown are medians.

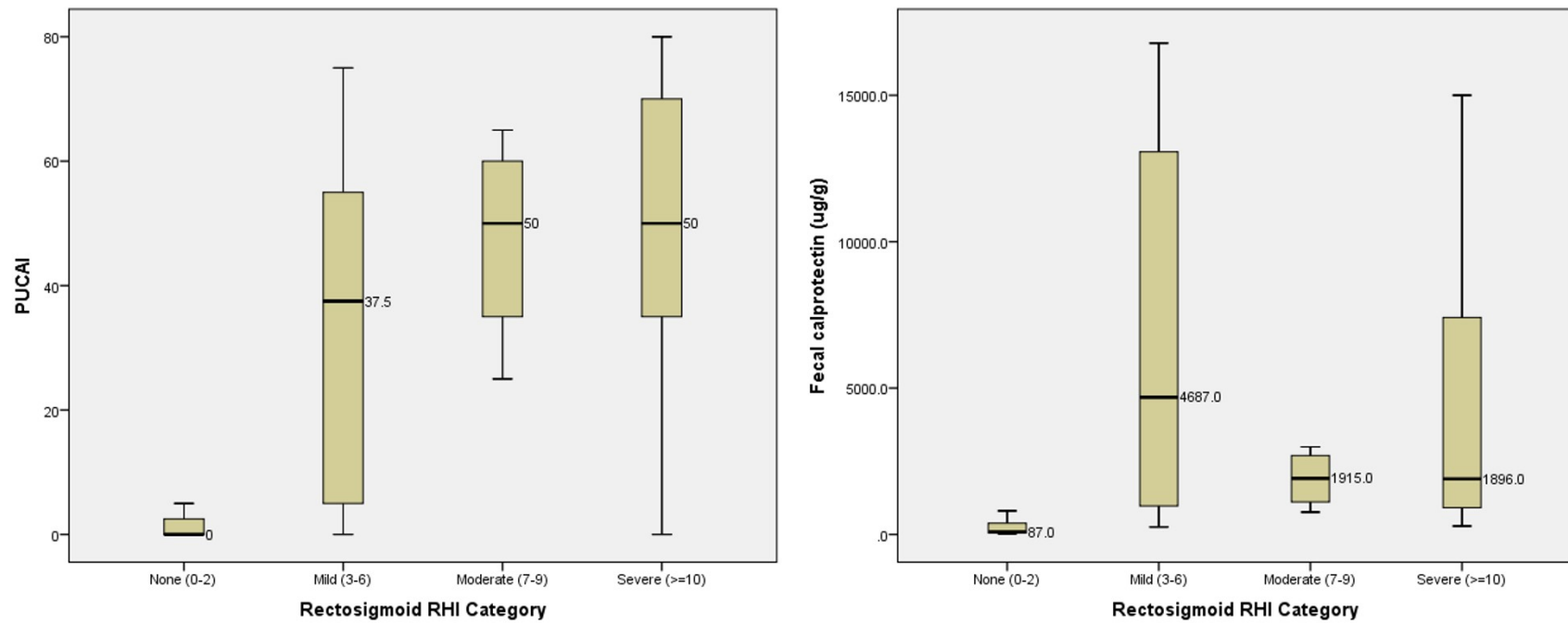
NI – Nancy Index; PUCAI – paediatric ulcerative colitis activity index; RHI – Robarts Histopathology Index

**Supplemental Figure 10.**



Clinical (A) and faecal calprotectin (B) activity in relation to pancolonic RHI. Numbers shown are medians.  
PUCAI – paediatric ulcerative colitis activity index; RHI – Robarts Histopathology Index

**Supplemental Figure 11.**



Clinical (A) and faecal calprotectin (B) activity in relation to rectosigmoid RHI. Numbers shown are medians. Numbers shown are medians. PUCAI – paediatric ulcerative colitis activity index; RHI – Robarts Histopathology Index