

# Smoking Adversely Impacts Therapeutic Response to Treatment in IBD Patients

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## Conclusions

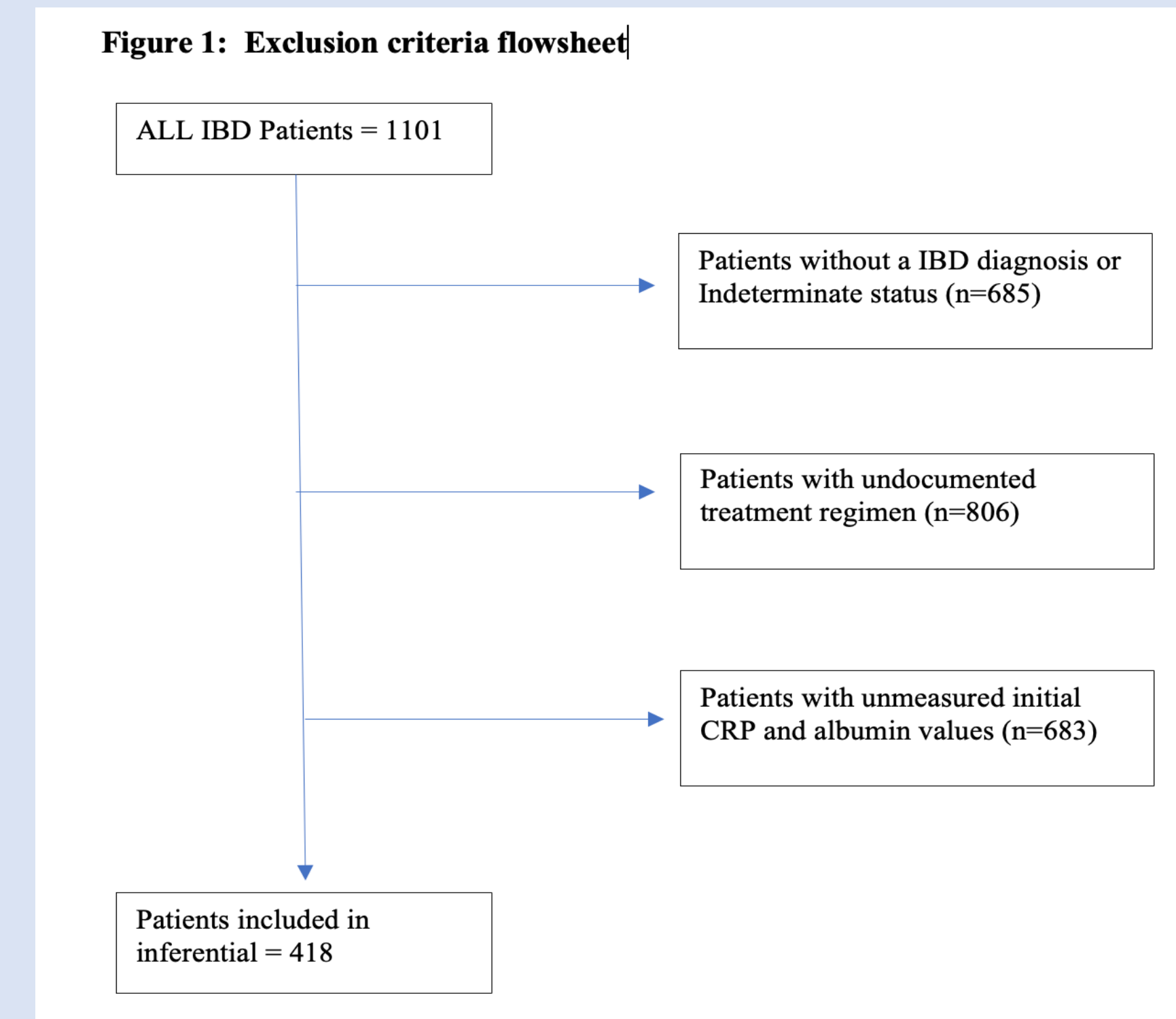
**1** In smokers, there is a trend of those on therapy (biologics, immunomodulators or both) to have a higher CRP/ALB ratio than those without therapy; this was statistically significant in combination therapy

**2** In never smokers, there is a trend of those on therapy (biologics, immunomodulators or both) to have a lower CRP/ALB ratio than those without therapy

**3** Our data proposes worsening therapy response in patients who smoke

## Background

- During a flare, IBD patients present with colonoscopy, imaging or laboratory findings such as an elevated C-Reactive Protein (CRP)
- C-Reactive Protein/Albumin (CRP/ALB) ratio has been shown to be elevated during a clinical flare
- Smoking may interfere with resolution of flare when using Inflammatory Bowel Disease (IBD) treatments
- Few studies have investigated the impact of smoking on therapeutic response of IBD treatments such as, biologics, immunomodulators or both



## Hypothesis

- Smoking is adversely associated with therapeutic response on all IBD treatments during a clinical flare

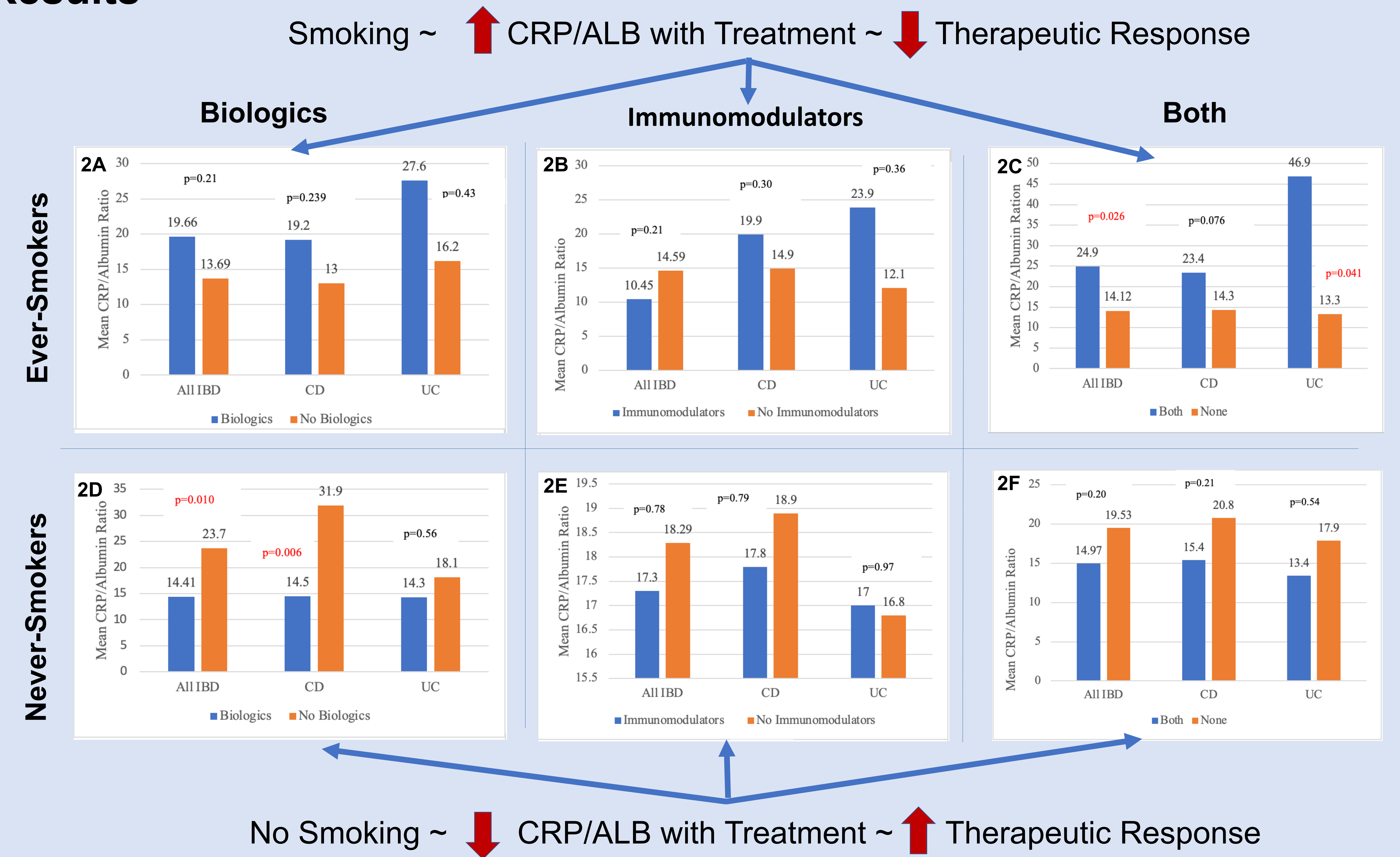
## Aim

- Assess the association of CRP/ALB ratio during a clinical flare in all IBD patients who have received treatment versus those who have never received treatment in relation to smoking status

## Method

- Between January 1<sup>st</sup> 2013 to June 1<sup>st</sup> 2017, 1101 adults (>18 years old) with a diagnosis of Crohn's (CD) or Ulcerative Colitis (UC) during their index hospitalization for IBD flare at University of Florida Shands Hospital were screened for inclusion
- Clinical flare was confirmed using findings from imaging (CT or MRI), endoscopy, and/or biopsy.
- Patients who had an undocumented treatment regimen, or unmeasured initial CRP and albumin values were excluded from analyses (**Figure 1**)
- Two-sample t-tests assuming unequal variance were used to compare CRP/ALB means among IBD, CD and UC patients with a smoking status on therapy and without therapy

## Results



**Figure 2A,B,C:** CRP/ALB ratio in ever-smokers on biologics (2A), immunomodulators (2B) and both (2C) is increased in most disease type

**Figure 2D,E,F:** CRP/ALB ratio in never-smokers on biologics (2A), immunomodulators (2B) and both (2C) is decreased in most disease type