Results: Overall 23 treatment naïve newly diagnosed CD patients had a complete set of data. Distinct separation in microbial composition between patients with low and high PGA was observed by the analysis of similarities test ($p = 0.016$, $R = 17\%$). Patients with low PGA had higher microbial diversity as well as lower MDI and faecal calprotectin levels compared with those with high PGA (median Shannon: 3.1 vs. 2.7, $p = 0.04$; median calprotectin: 293 vs. 595 micrograms/mL, $p = 0.04$; median MIDE: $-1.6$ vs. $-0.5$; $p = 0.006$). Samples from patients with high PGA were richer in Enterobacteriaceae, Ruminococcaceae, and Lachnospiraceae. Abundance of Bacteroidales order negatively correlated with calprotectin ($p = 0.04$, $R = -0.5$).

Conclusions: Microbial dysbiosis in treatment naïve newly diagnosed CD patients was associated with disease activity as reflected by PGA and faecal calprotectin. Longitudinal assessment may reveal specific early dysbiosis patterns as predictive biomarkers for disease flares.

P404 Development of anti-drug antibodies among those treated with adalimumab and ABP 501 and its impact on serum drug concentration in randomised controlled studies

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Background: Sustained clinical response to biologic therapies is predicated on adequate drug exposure, which can be impacted by development of anti-drug antibodies (ADA). The objective was to compare the serum trough concentrations of ABP 501 (AMGEVITA®; adalimumab) with adalimumab (Humira®) reference product (RP), and correlate these with incidence of developing anti-drug antibodies (ADAs).

Methods: We descriptively analysed serum drug trough concentration data and binding ADAs from baseline to primary analysis time point in two randomised controlled trials of ABP 501 compared with adalimumab—a 52-week study among patients with plaque psoriasis (PsO) and 26-week study among patients with moderate-to-severe rheumatoid arthritis (RA) on background therapy with methotrexate.

Results: The proportion of subjects with binding ADA positive results increased from 18.1% to 33.5% from Week 4 to Week 26 in the RA study and 29.0–57.0% from Week 4 to Week 16 in the PsO study. Mean serum trough concentrations of ABP 501 and adalimumab RP was lower among those who tested positive for binding ADA time in both studies due to binding ADAs. However, trough concentration over the duration of the study remained similar between ABP 501 and adalimumab RP treatment arm in binding ADA-negative and binding ADA-positive subgroups.

Conclusions: The formation of binding ADAs in both RA and PsO studies impacts the exposure of both ABP 501 and adalimumab RP similarly over time. Furthermore, this reflects on the importance of using sensitive assays for understanding the immunogenicity of these products.

P405 5-ASA prescription trends over time in inflammatory bowel disease 1996 to 2015—A UK population-based study

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Background: 5-Aminosalicylates (5-ASA) are commonly prescribed for inflammatory bowel disease (IBD). Whilst they are effective in mild–moderate ulcerative colitis (UC), evidence for their benefit in Crohn’s disease (CD) is controversial. Few data are available on the evolution of 5-ASA prescriptions over time, from a population level.

Methods: 5-ASA prescription trends in prevalent IBD patients in The Health Improvement Network (THIN) UK primary care database were evaluated retrospectively across five 4-year periods (era 1–5) between 1996 and 2015. The proportion of patients prescribed 5-ASA at any time of their disease, and within 1 year of IBD diagnosis was stratified by IBD type, 5-ASA type and age group (0–15–<18, ≥18–<65, ≥65, ≥75, ≥85, ≥95, ≥75, ≥100, ≥105, ≥110). Prolonged use was defined as continuous use for ≥2 years. Chi-squared test for trend was used to evaluate differences in prescription trends. Trends were qualitatively assessed relative to the publication of new evidence and guidelines.

Results: Prevalence of 5-ASA prescriptions over time and total number of patients by each era are shown in Figure 1.

Demographic characteristics were similar over time: 48–51% of UC and 56–58% CD patients were female; the range of mean age of UC patients was 30–56 years and 46–50 years in CD. Current smoking status declined in UC (12–8%) and CD (32–20%) from era 1 to 5. For UC, 5-ASA prescriptions declined from 83% in era 1 to 71% in era 5 ($p < 0.001$). The use of mesalazine remained stable from era 1 to 5 (63–65%, $p = 0.151$). In UC patients aged 12–18 5-ASA use remained

<table>
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Figure 1. Prevalence of 5-ASA prescriptions among patients with ulcerative colitis and Crohn’s disease from 1996 to 2015.

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