prospectively collected by questionnaire and from the treating doctor.

Results: 40 mother-baby pairs have been tested (20 IFX and 20 ADA). Drug was ceased prior to gestational week (GW) 30 in 16 (40%) women without disease flares. In them, mean serum concentrations were 1.78 μg/mL (IFX) and 0.15 μg/mL (ADA), and the cord blood level at delivery was <3 μg/mL in 12/16 (75%). There was a strong correlation between cord blood and maternal levels at delivery (IFX: Pearson’s r = 0.77, p < 0.0001; ADA: r = 0.753, p < 0.0001). An inverse correlation between duration since last exposure and maternal ATA levels at birth was found (IFX: r = −0.55, p = 0.01; v ADA: r = −0.48, p = 0.04). This was also the case for cord IFX levels at birth (r = −0.532, p = 0.02), but not for cord ADA levels at birth (r = −0.38, p = 0.12). Complete clearance of ATA was seen in 14/17 babies by 6 months and in this group 7 stopped ATA by week 30. To date there has been no detectable ATA levels by 9 months. One woman (2.5%) gave birth preterm (GW 34+1). No congenital malformations were detected and all babies are developing normally.

Conclusions: Cord blood ATA levels were strongly correlated with maternal level at delivery. Maternal and neonatal ATA levels seem to be inversely correlated with the duration since last exposure. Maternal cessation of ATA prior to week 30 successfully reduced fetal exposure to drug in the majority of cases. Follow up will determine whether high neonatal levels have any negative consequences.

DOP042
Large variation in infliximab trough levels is associated with disease activity in paediatric inflammatory bowel disease
1 Academic Medical Center/Emma Children’s Hospital, Department of Paediatric Gastroenterology and Nutrition, Amsterdam, Netherlands, 2 Academic Medical Center, Department of Gastroenterology, Amsterdam, Netherlands, 3 VU University Medical Center, Pediatric Gastroenterology, Amsterdam, Netherlands, 4 Medisch Spectrum Twente, Pediatric Gastroenterology, Enschede, Netherlands

Background: Low serum trough levels (TL) of infliximab (IFX) and the formation of antibodies to IFX (ATI) are associated with the loss of therapeutic response in adults with inflammatory bowel disease (IBD). Until now, paediatric data are scarce. Therefore, we aimed to investigate the association between ATI and IFX TLs, and clinical and biochemical disease activity (DA) in children receiving maintenance treatment with IFX for IBD.

Methods: All children aged <18 years receiving scheduled IFX maintenance treatment for Crohn’s disease (CD) or ulcerative colitis (UC) in 3 hospitals in the Netherlands where asked to participate. Prior to two consecutive IFX infusions, IFX TL and ATI were measured. Therapeutic range of IFX was considered between 3.7 and 7 μg/mL. Furthermore, biochemical DA was assessed by C-reactive protein (CRP) and faecal calprotectin (FC) (Bühlman ELISA). Clinical DA was determined by activity indices PCDAI and PUCAI, for CD and UC, respectively. Clinical remission was defined as a score of <10 for both PCDAI and PUCAI. A score of >30 or ≥65 was considered severe DA for PCDAI and PUCAI, respectively.

Results: Between December 2012 and February 2013 33 patients were included (26 CD, 7 UC), with a median age of 14 years [IQR 12–16]. All TL measurements combined (n = 66), the median IFX TL was 3 μg/mL [IQR 1–6]. Subtherapeutic, therapeutic and supratherapeutic TLs were found in 42.4%, 39.4% and 18.2% of measurements, respectively. ATI were detected in 3 patients but our assay does not allow antibody detection in the presence of drug. Median FC and CRP was 394.5 μg/L and 2.4 mg/L, respectively. At both time points, the majority of patients were either in clinical remission (56.9%) or had mild to moderate clinical DA (41.2%). At the first measurement, no significant correlation between IFX TL and clinical or biochemical DA was found, although a trend was observed for FC (r = −0.33, p = 0.08) and CRP (r = −0.33, p = 0.06). At the second measurement, a significant correlation was found between IFX TL and clinical DA grading (r = −0.48, p = 0.01) and FC (r = −0.49, p = 0.01). Patients with therapeutic IFX TLs (>3 μg/mL) were more likely to be in clinical remission (p = 0.01).

At both measurements, a significant correlation between clinical DA and FC was observed (r = −0.53, p < 0.01; r = −0.50, p = 0.02), whereas no correlation was found between CRP and clinical DA (p = 0.16; p = 0.44).

No difference was found in IFX TLs between children receiving IFX monotherapy or concomitant immunosuppression.

Conclusions: IFX TLs appear to be related to both clinical and biochemical DA (the latter measured by FC), which provides a rationale for therapeutic drug monitoring in children receiving IFX for IBD. Furthermore, a large variation in IFX TLs was found.

DOP043
The role of thiopurines in reducing the need for first intestinal resection in Crohn’s disease: A systematic review and meta-analysis
S. Chatu1 , V. Subramaniam2 , S. Saxena3 , R. Pollok1 .
1 St Georges University Hospital, Gastroenterology, London, United Kingdom, 2 St Jame’s University Hospital, Center for Digestive Diseases, Leeds, United Kingdom, 3 Imperial College London, Primary care and Public Health, London, United Kingdom

Background: The thiopurine (TP) analogues azathioprine and mercaptopurine have proven efficacy in inducing and maintaining clinical remission in Crohn’s disease (CD). Their impact on the long term need for surgery is uncertain since studies have reported conflicting results. The aim of this systematic review was to summarize and evaluate evidence of the published literature regarding those studies assessing the impact of TPs on the risk of first surgical resection in CD.

Methods: We searched Medline, EMBASE, CINAHL, and hand searched reference lists of identified articles, without language restrictions in August 2013.

Results: Seventeen retrospective observational studies (Eight population based, three multicenter and Six referral center) representing 21, 632 participants met our inclusion criteria. Of these ten studies involving 12, 586 participants provided data on the hazard ratio and 95% confidence intervals evaluating use of TPs and surgical risk. The combined pooled hazard ratio of first intestinal resection with thiopurine use was 0.59 (95% CI 0.48–0.73) (Figure 1).

Figure 1. Forest plot of studies reporting hazard ratio associated with thiopurine use and risk of surgery in CD patients.