been newly started and opted for SC administration. Between October and December 2020, all suitable patients attending our infusion centre for vedolizumab were offered the option to switch to SC. Initially, the aim was to offer a SC dose to patients in place of their IV infusion with injection training by IBD specialists. This proved to be a challenge as it left a narrow window of time for homecare deliveries to be arranged for subsequent doses. Therefore, the remaining patients who agreed to the switch received an IV infusion at their baseline review, with the aim of administering the first SC dose in place of the next scheduled IV dose.

Outcomes include reasons for consenting or declining to switch, patient experience with using SC injections and time saved by not needing to travel to the infusion centre. Data on factors associated with poor outcomes from SARS-CoV-2 infection were collected, including co-morbidities, smoking status, concomitant medication and age.

Clinical baseline data collected as part of routine care included disease activity (modified Harvey-Bradshaw Index or Simple Clinical Colitis Activity Index), biochemical results including C-reactive protein, albumin, haemoglobin and platelet count, faecal calprotectin and quality of life using IBD-Control. Trough vedolizumab levels were measured in patients who had had at least 3 IV doses previously. Patients will be reviewed after 12 weeks as part of the switching programme.

Results 179 patients were offered the opportunity to change to SC vedolizumab (54.2% CD, 44.1% UC, 1.7% IBDU), of which 125 (70%) (64 (51.2%) CD, 58 (46.4%) UC and 3 (2.4%) IBDU) agreed to the switch. The mean age (SD) was 55 (19.4). 11 patients were new to vedolizumab or reloading. The median time taken by patients (leaving home to returning home) to receive their infusions was 180 minutes (IQR 45 to 360).

The main reasons for agreeing to switch were patient preference to manage their treatment at home (70.4%), concerns about contracting an infection at the infusion centre (15.7%) and difficulty attending the infusion centre (15.7%). Reasons for patients declining included not wanting to self-inject (28.3%), needle phobia (15.2%), and current instability of symptoms (15.2%). There have been no major adverse events to date.

Conclusions This is a description of a service evaluation design to monitor outcomes in patients who have consented to transition from IV to SC vedolizumab at one IBD tertiary referral centre.

PMO-16 EFFICACY AND SAFETY OF ELECTIVE SWITCHING FROM INTRAVENOUS TO SUBCUTANEOUS INFlixIMAB: A MULTI-CENTRE COHORT STUDY

¹Philip J Smith*, ¹Daniel Storey, ¹Belle Gregg, ¹Lisa Critchley, ¹June Stenson, ¹Andrew Kneebone, ¹Tracy Rimmer, ¹Stevena Burke, ²Wan Yi Teoh, ²Stephan Vazeille, ³Solange Serna, ¹Ashley Bond, ¹Alan Steel, ¹Martyn Dibb, ¹Paul Collins, ¹Edmund Derbyshire, ¹Keith Bodger, ¹Christopher Probert, ³Ajay Verma, ¹Sreedhar Subramanian. ¹Department of Gastroenterology, Liverpool University Hospitals Foundation NHS Trust, Liverpool, UK; ²Liverpool School of Medicine, University of Liverpool, Liverpool, UK; ³Department of Gastroenterology, Kettering General Hospital, Kettering, UK

10.1136/gutjnl-2021-BSG.155

Introduction Intravenous (IV) infliximab is a well-established therapy for inflammatory bowel diseases (IBD) patients. A subcutaneous (SC) formulation of infliximab has recently been

shown to be as effective as IV infliximab in a randomised trial but there are no real world data to support elective switching. We aimed to assess the effectiveness of an elective switching program from IV to SC infliximab.

Methods Patients on maintenance IV infliximab were included in this retrospective multi-centre cohort study across two sites. Disease activity was monitored serially with Harvey-Bradshaw Index (HBI) for Crohn's disease (CD) and simple clinical colitis activity index (SCCAI) for Ulcerative colitis (UC) at baseline, 3 and 6 months. Faecal calprotectin (FCP), C-reactive protein (CRP) and infliximab levels were recorded at the same time points. Patients on 5mg/kg every 8 weeks were switched to SC infliximab 120mg every other week (EOW), followed by those on 6 and 4 weekly IV infliximab to either EOW or weekly SC infliximab. Inclusion and exclusion criteria for switching were agreed within a standard operating procedure. Data was analysed using SPSS for Windows and Microsoft Excel, were $p < 0.05$ being significant (ns, non-significant).

Results 172 patients (109 CD, 57 UC, 6 IBD-U) were switched to SC infliximab since April 2020 (97 male vs. 75 female; mean age 39.7 years; mean weight 78.6kg). 57.6% of patients ($n=99$) were on concurrent immunomodulators (mean thioguanine level = $259\text{pmol}/8 \times 10^8$ RBC). 152 patients were switched to EOW dosing, 20 to weekly dosing. From baseline to 6 months post switch, HBI, SCCAI, FCP and CRP remained stable ($p > 0.05$, ns), but infliximab levels significantly increased from baseline (baseline mean = 9.8ug/mL vs. 3 month mean = 14.6ug/mL ; $p < 0.0001$) and then levels remained high between 3 and 6 month follow up (6 month mean = 15.0ug/mL ; $p > 0.05$, ns). 8 patients (4.65%) had self-limiting skin injection site reactions, 1 UC patient (0.58%) required corticosteroids for a disease flare, and 2 patients (1.16%) developed perianal symptoms requiring examination under anaesthesia (EUA). Overall 4 patients (2.36%) discontinued SC treatment due to adverse events (2 perianal disease patients requiring EUA, 1 flaring UC patient requiring oral steroids and 1 patient with neurological symptoms) and 1 (0.58%) planned discontinuation for a patient in the 3rd trimester of pregnancy.

Conclusions SC infliximab is effective at maintaining remission in IBD patients switched from IV to SC infliximab with no evidence of inferiority at 6 month follow up. There is a significant increase in infliximab levels from baseline to 3 months which is maintained to 6 months post switch. SC infliximab appears to be safe with low rates of injection site reaction or other serious adverse events.

PMO-17 CLINICAL PREDICTORS OF VEDOLIZUMAB RESPONSE IN CROHN'S DISEASE

¹Hajeena Saravanapavan*, ¹Gregory Sebeos-Rogers, ¹Konstantinos Fragkos, ¹John Barragry, ²Hui Fen Koo, ²Ho Juen Ko, ¹Ioanna Parisi, ¹Edward Seward, ¹Sara McCartney, ¹Stuart Bloom, ¹Shameer Mehta, ¹Farooq Rahman. ¹Dept. Gastroenterology, University College Hospital, London, UK; ²University College London Medical School, London, UK

10.1136/gutjnl-2021-BSG.156

Introduction Vedolizumab (VDZ) is an $\alpha 4\beta 7$ integrin antagonist licensed for treatment of moderate to severe Crohn's disease (CD). We provide long-term data on best predictors of clinical and corticosteroid-free response, remission and persistence from a tertiary IBD centre.

Abstract PMO-17 Figure 1 Rates of CR, CRM and CSFRM a 3 year period

Methods A consecutive cohort of 90 adult CD patients treated with VDZ were retrospectively reviewed over a 3-year period. Primary end-points were clinical response (CR) as defined by Harvey-Bradshaw Index (HBI) reduction of ≥ 3 and clinical remission (CRM) defined as HBI < 5 . Corticosteroid-free remission (CFRM) was analysed at weeks 14, 54, 106 and 162. VDZ persistence was a secondary-end point. Predictors of CR, CRM and CFRM were examined with logistic regression. Predictors of time to CR and VDZ persistence were analysed with Cox Regression. Statistical analyses were performed using Statistical Package for the Social Sciences software (SPSS Inc v.26, Chicago, IL).

Results Median age at CD diagnosis and VDZ initiation were 19 (IQR 13-28) and 28 (IQR 23-42) respectively. Concomitant corticosteroid use (42.2%), immunomodulator use (53.3%) and prior biologic exposure (63.3% Infliximab, 84.4% Adalimumab, 42.2% Ustekinumab) were high. 54.4% were exposed to 2 anti-TNF agents whilst 27.8% had 3 biologics.

Duration between CD diagnosis and VDZ initiation predicted CR at week 14 and 54 with OR=0.94 (0.89-1.00), $p=0.057$ and OR=0.92 (0.85-0.99), $p=0.037$, respectively. For every year increase in duration of disease prior to VDZ, the risk of not responding to VDZ at 14 and 54 weeks decreased by 6% and 8% respectively. Prior adalimumab use was the only significant predictor of time to CRM (HR=0.52, 95% CI [0.29,0.95], $p=0.034$) and was associated with a 50% reduction in likelihood of achieving CRM with VDZ.

The rate of VDZ persistence was 50.0%, 28.9% and 13.5% at 1, 2 and 3 years, respectively with a median duration of 12.7 months (95% CI 9.2-21.4). Colonic CD was a significant moderator of persistence and increased as compared to ileal CD (HR=0.42, 95% CI [0.22-0.83], $p=0.012$). Prior Ustekinumab was a predictor of VDZ persistence (HR=0.36, 95% CI [0.21, 0.61], $p<0.0001$) whilst every 100 unit rise of faecal calprotectin (FC) at baseline was associated with a 3% risk of VDZ cessation (HR=1.03, 95% CI 1.1,1.06), $p=0.036$).

Conclusion Late VDZ use after CD diagnosis, anti-TNF naivety, colonic disease, prior Ustekinumab use and low

baseline FC are predictors of good clinical outcome and VDZ persistence. These factors are relevant in biologic selection and sequencing decisions to tailor bespoke patient therapy.

PMO-18 **INTESTINAL FAILURE IN CROHN'S DISEASE: A SYSTEMATIC REVIEW AND META-ANALYSIS OF SURGICAL RISK FACTORS**

¹Nader Al-Shakarchi*, ¹Ryan Nolan, ¹Tanvi Khetan, ²Konstantinos C Fragkos, ²Farooq Rahman. ¹University College London, UK; ²Intestinal Failure Service, University College London Hospitals NHS Foundation Trust, UK

10.1136/gutjnl-2021-BSG.157

Introduction Intestinal failure (IF) is a rare but serious complication of Crohn's disease (CD). However, to date, surgical risk factors remain poorly characterised and data from individual studies can be difficult to interpret or limited. We reviewed the existing literature, to identify surgical factors for IF in CD patients.

Methods According to PRISMA guidelines, a systematic review of PubMed for IF and CD was conducted through a series of advanced searches. To identify risk factors, articles related to IF and CD were analyzed according to demographics and CD characteristics, surgical characteristics, and nutritional and medical management. Study quality was assessed using the *Item Bank for Assessment of Risk of Bias and Precision for Observational Studies of Interventions or Exposures*. Where applicable, a meta-analysis with a random-effects model was performed in R. Results are presented as mean $\pm$ standard deviation.

Results 7 original articles were included with a total of 438 CD patients diagnosed with IF; 6 (85.7%) were retrospective studies and 1 was a prospective study (14.3%). The majority of studies were considered to be of low risk of bias (57.1%), and the remainder had a medium risk of bias (42.9%). From 3 or more studies, the mean age at CD diagnosis from meta-analysis was 28.2 yrs (95% CI: 24.0-32.5, $P<0.01$, $I^2=92\%$), the proportion of males was 42.7%, and the mean proportion