day in AIH. In 10.7 % of patients, the concentrations of 6-TG and 6 MMP were below the proper range, in the same percentage of patients metabolites were undetectable.

Conclusion: In a significant number of cases monitoring the concentration of AZA metabolites indicated the necessity to reduce the dose of AZA allowing to achieve the therapeutic optimum and prevent serious side effects. Receiving undetectable concentration of metabolites is a sign of non-compliance. The final doses of AZA were found to be lower than the recommended doses. Therapeutic drug monitoring (TDM), which involves measurement of drug or active metabolite levels is a good strategy that can be used to optimise IBD and AIH therapeutics.

P671

Natural history and clinical outcomes of patients with ulcerative colitis who are intolerant to 5-aminosalicylic acid agents: A multi-centre cohort study

A. Madarame1, H. Kinoshita1, T. Yamaguchi1, Y. Izumi1, Y. Nishikawa1, S. Shonai1, M. Tatsuno1, I. Ishii1, K. Yaguchi1, Y. Nakamori1, A. Ikeda1, K. Araki1, A. Hirayama1, T. Ogashima1, A. Fujii1, R. Suzuki1, H. Kimura1, R. Kuniaki1

1Yokohama City University Medical Centre, Inflammatory Bowel Disease Centre, Yokohama, Japan, 2Kannai Suzuki Clinic, Inflammatory Bowel Disease Centre, Yokohama, Japan

Background: Five-aminosalicylic acid (5-ASA) compounds are used as the primary treatment for ulcerative colitis (UC); however, some patients are intolerant to this drug. There have been few studies on the natural history and clinical outcomes of 5-ASA intolerant patients. The aim of this study was to elucidate the clinical outcomes of 5-ASA intolerant patients in terms of colectomy, immunomodulator use, and biologic (anti-tumour necrosis factor (TNF) and Vedolizumab) therapy.

Methods: Data were obtained by a retrospective review of the charts of 2065 consecutive patients with UC who were treated with 5-ASA compounds at our tertiary referral inflammatory bowel disease (IBD) centre and a related IBD clinic from 2010 to 2020. Patients were considered to be intolerant to 5-ASA if they discontinued the drug because of any type of adverse effect. The cumulative rates of immunomodulator-, biological- and colectomy-free survival rates in 5-ASA tolerant and intolerant patients were calculated using the Kaplan–Meier method. Additionally, Cox regression was used to analyse other factors besides 5-ASA intolerance contributing to clinical outcomes.

Results: Intolerance to 5-ASA was identified in 268 patients. The cumulative probability of colectomy within 10 years in 5-ASA intolerant patients was 23%, which is significantly higher than that in tolerant patients, 10% (log-rank test < 0.0001). Within 10 year, 63% of 5-ASA intolerant and 20% of tolerant patients received immunomodulators (log-rank test < 0.0001); and 37% of 5-ASA intolerant and 11% of tolerant patients received biologic therapy (log-rank test < 0.0001). Cox regression multivariate analysis identified that younger age, disease extent and 5-ASA intolerance were predictors of colectomy.

Conclusion: In this retrospective cohort study, 5-ASA intolerant patients had worse clinical outcomes than those who tolerated 5-ASA treatment. This is the first report on the long-term prognosis of 5-ASA intolerant patients.

P672

The escalation of therapy or intervention (ETI) calculator for ulcerative colitis: does it have the potential to help outpatient capacity meet demand?

A.J. Walsh1, L. Matini1, R. Kantschbauer1, M. Lepetyukh1, D. Simadibrata1, G. Collins1, J. Wilson1, M. Hussain1, A. Tarafdar1, O. Brain1, R. Palmer1, T. Ambrose1, J. Satsangi1, S.P.L. Travis1

1Oxford University Hospitals NHS Foundation Trust and Oxford AHSN, Translational Gastroenterology Unit, Oxford, UK

Background: Demand for outpatient clinic appointments for ulcerative colitis (UC) often exceeds capacity, since spaces are frequently assigned to routine follow-up of patients who are well. Demand might better be managed by targeting appointments for patients in need of therapeutic decisions. The TrueColours UC (TCUC) Escalation of Therapy or Intervention (ETI) calculator is a potential enabling tool.

Methods: TCUC is a web-based programme based on email prompts linked to validated, disease-specific indices. The ETI Calculator was created after logistic regression showed that patient-reported symptoms (Simple Clinical Colitis Activity Index) and quality of life (IBD Control-8) could calculate the probability of therapy escalation or an urgent intervention during an outpatient appointment (OPA, Figure 1). From June 2018 to August 2019, all OPA for 650 patients using TCUC and under standard OPA follow-up were examined. The probability of escalation at each OPA was calculated using the most recent prior SCCAI and IBD-Control scores (within 2 weeks of appointment). Clinic letters were assessed to determine whether treatment escalation or intervention had occurred during the OPA.

Figure 1. UC Escalation of Therapy Calculator for SCCAI and IBD Control-8

Results: Of 650 patients, 236 had a total of 403 OPAs. 210/403 (52%) of these OPAs resulted in no treatment escalation; 159/403 (40%) had escalation and 34/410 (8%) had de-escalation. An ETI calculator threshold set at 5% estimated probability of treatment escalation or intervention had correctly identified 143/159 (90%) escalation events. 16/159 (10%) escalations were not correctly predicted: 12/16 were escalations of medication (oral 5-aminosalicylic acid, n = 3), azathioprine (2), methotrexate (1), increase infliximab dose (2), adalimumab (3), tofacitinib (1). Other escalations were endoscopy requests (2), dermatology/rheumatology referrals (2). Importantly, 6/16 (38%) had taken steroids within 1 month of data collection.

143/403 (35%) of OPAs could have been deferred using a 5% ETI threshold. In contrast, increasing the ETI threshold to 25% would