compared to a strategy based on symptoms alone. The aim of this study was to determine whether normalisation of FC (<250 μg/g) within 12-months of diagnosis is associated with a reduction in disease progression in CD.

Methods This was a retrospective cohort study performed at a tertiary IBD centre. All incident cases of CD diagnosed between 2005–2017 were identified. Patients with a FC measurement of >250 μg/g at diagnosis who also had at least 1 follow up FC measured within the first 12-months of diagnosis and >12 months of follow up were included. The primary endpoint was a composite of progression in Montreal disease behaviour (B1 to B2/3 or B2 to B3 or new perianal disease), surgery or hospitalisation.

Results A total of 375 patients were included with a median follow up of 5.3 years (IQR 3.1–7.4). Normalisation of FC (<250 μg/g) within 12 months of diagnosis was confirmed in 43.5% (n=163/375) of the cohort. On multivariable Cox-proportional hazards regression analysis, individuals who normalised their FC within 12 months of diagnosis had a significantly lower risk of composite disease progression (HR 0.351, 95% CI 0.235–0.523, p<0.001) (figure 1). In addition, normalisation of FC was the only predictor that remained significant for all of the separate progression end-points (progression in Montreal behaviour/new perianal disease: HR 0.250, 95% CI 0.122–0.512, p<0.001; hospitalisation: HR 0.346, 95% CI 0.217–0.553, p<0.001; surgery: HR 0.370, 95% CI 0.181–0.755, p=0.006). Patients initiated on a biologic within 3 months of diagnosis were significantly more likely to normalise their FC within 12 months of diagnosis (OR 4.288, 95% CI 1.585–11.0601, p=0.004).

Conclusions Normalisation of FC by 12-months of diagnosis is associated with a reduced risk of disease progression in CD. The immediate implication for healthcare providers and patients is that by ensuring resolution of mucosal inflammation - using FC as a proxy target - within 1 year of diagnosis has a dramatic effect on disease course.