OBJECTIVES/SPECIFIC AIMS: Our primary objectives were to examine the impact of biologic cost sharing on 1) adherence to biologics and 2) persistence on biologics in inflammatory bowel disease (IBD) patients. Our secondary objective was to assess the effect of biologic cost sharing on clinical IBD outcomes, including rates of hospitalization, abdominal surgery, and corticosteroid treatment. METHODS/STUDY POPULATION: This retrospective cohort analysis used a national insurance claims database (Optum Clininformatics DataMart) to assess adult IBD patients enrolled in medium or large private insurance plans from 2007-2016. Patients were followed for one year of continuous enrollment after their index biologic claim. We assessed adherence to biologic medications (medication possession ratio >0.8) dependent on patient cost sharing, as measured by an employer-plan’s average out-of-pocket biologic medication cost. We also examined the effects of patient cost sharing for biologics on need for hospitalization, abdominal surgery, or corticosteroid treatment. We used multivariate logistic regression models adjusting for clinical and demographic characteristics. We estimated the effect of cost sharing on biologic therapy persistence using repeated measures proportional hazard survival models. RESULTS/ANTICIPATED RESULTS: We identified 2,193 adult IBD patients who initiated biologic therapy and met study criteria (Crohn’s disease 66.1% vs. ulcerative colitis 24.9%, mean age 40.8 years, mean Charlson index 0.50). Median [IQR] out-of-pocket cost per 30-day biologic prescription was $62 [$34 - $157]. 66.9% of patients were adherent to biologic therapy. Higher out-of-pocket costs for biologics were associated with increased odds of nonadherence; patients with ulcerative colitis were more price-sensitive than patients with Crohn’s disease or indeterminate colitis (Figure 1). However, higher out-of-pocket biologic costs were not associated with increased odds of all-cause or IBD-related hospitalization, IBD-related surgery, or corticosteroid prescriptions for IBD flares. Patients whose out-of-pocket costs were less than $10 per 30-day biologic prescription persisted on biologic therapy for significantly longer than patients who paid >$10 (Figure 2). DISCUSSION/SIGNIFICANCE OF IMPACT: Nonadherence to biologics increases when IBD patients face higher out-of-pocket costs, particularly for ulcerative colitis patients. However, this is not associated with worse clinical outcomes. Patients with cost-sharing <$10 persisted on biologics longer than patients whose cost sharing exceeded $10.