Medication Adherence in Patients with Inflammatory Bowel Diseases within the CCFA Partners Cohort

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Background and Aims: Patients with inflammatory bowel diseases (IBD) have chronic inflammatory conditions characterized by periods of relapse and remission.   Medication non-adherence may be associated with relapse. We aimed to determine baseline medication adherence in patients with Crohn's disease (CD) and ulcerative colitis (UC) in a national Internet cohort of patients with IBD (CCFA Partners). We also aimed to determine if medication non-adherence was associated with increasing levels of disease activity.

Methods: We developed an Internet cohort (CCFA Partners) of patients with IBD. Invitations to join the cohort were sent via email to individuals listed on CCFA rosters. Respondents completed a baseline survey that included modules on disease course, disease activity (short CD activity index (CDAI) and simple clinical colitis activity index(SCCAI)), and Morisky medication adherence scale (MMAS). The MMAS is previously validated for IBD. Only adults (age>17) and those with IBD were eligible for inclusion within the cohort. Follow up assessments are planned every 6 months. Descriptive statistics were used to compare MMAS by CD or UC and also by levels of disease activity.

Results: A total of 7819 individuals with self-reported IBD joined CCFA Partners. A total of 2149 (52.8%) had low adherence, 1842 (45.3%) with medium adherence and 79 (1.9%) with high adherence on the MMAS scale. The overall mean MMAS was 4.93 (sd 1.9), for CD 4.91 (sd 2.0), for UC 4.98 (sd 1.9), p=0.30.

	Quartiles of disease activity				p value*
	Low CD: SCDAI <73 UC: SCCAI <2	**Low-Medium** CD: SCDAI 73-128 UC: SCCAI 2-3	**High-Medium** CD: SCDAI 129-198 UC: SCCAI 4-5	**High** CD: SCDAI >198 UC: SCCAI ≥6	
CD: MMAS mean (sd)	5.4 (1.7)	4.9 (2.0)	4.7 (2.1)	4.6 (2.0)	<0.01
UC: MMAS mean (sd)	5.2 (1.8)	5.0 (1.9)	4.8 (1.9)	4.6 (2.0)	<0.01

*One-way anova

Conclusions: The majority of IBD patients have medication adherence measurements in the low range. There is no difference in adherence by CD or UC. Increasing levels of disease activity, as measured by validated indices for self-report in CD and UC, are associated with non-adherence to medications. Future studies within CCFA Partners will include educational interventions to optimize medication adherence.