**Supplementary Table 1.** Medication use, disease activity scores, quality of life, and healthcare utilization at year 1 based on baseline vitamin D levels

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Vitamin D deficient(n=86) |  Vitamin D insufficient(n=319) | Normal Vitamin D(n=560) | *P* value for 3-group comparison |
| Prednisone use (%) | 52.7% | 50.1% | 43.8% | .6 |
| Biologics use (%) | 48.8% | 47.2% | 37.3 | .5 |
| Immune-modulators use (%) | 60.8% | 54.6% | 51.2% | .3 |
| Narcotics use (%) | 55.8% | 53% | 46.5%  | .4 |
| Pain sub-scores \*(Mean, SD) | 5.1 (1.4) | 5.6 (1.9) | 5.6 (1.5) | .8 |
| HBI score for CD(Mean, SD) | 6.4 (3.9) | 6.5 (4.7) | 4.8 (3.2) | .7 |
| UCDAI(Mean, SD) | 5.8 (4.0) | 5.3 (3.8) | 4.2 (3.6) | .6 |
| SIBDQ score\*\*(Mean, SD) | 49.3 (12.4) | 54.1 (12.2) | 55.7 (14.1) | .7 |
| Healthcare utilization score (Mean, SD) | 15.3 (4.2) | 14.8 (5.1) | 12.1 (4.8) | .2 |

\*Lower score indicates more pain

\*\*Lower score indicates worse disease related quality of life

SIBDQ, short inflammatory bowel disease questionnaire; HBI, Harvey-Bradshaw index; CD, Crohn’s disease; UCAI, ulcerative colitis activity index; UC, ulcerative colitis; SD, standard deviation; ED, emergency department.