Reviewer’s report

Title: Medication adherence and persistence in the treatment of Canadian ulcerative colitis patients: analyses with the RAMQ database

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Reviewer: Maida Sewitch

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Re: Medication adherence and persistence in the treatment of Canadian ulcerative colitis patients: analyses with the RAMQ database

Thank you for the opportunity to review the manuscript entitled, “Medication adherence and persistence in the treatment of Canadian ulcerative colitis patients: analyses with the RAMQ database”. The objectives of the study were to estimate adherence and persistence to 5-ASA treatment and to its specific treatments and to identify the potential determinants of adherence and persistence in a ‘real-life setting’. The main study findings: High adherence was predicted by male gender, older age, and current use of corticosteroids. High persistence was predicted by male gender, current use of corticosteroids, and presence of hypertension or respiratory diseases.

In general, the manuscript was well-written. However, the methods were not well-described, and may have been inappropriate, leading to biased results.

First is the possibility for selection bias, as there was no information on the diagnostic codes used to define ulcerative colitis (UC). Persons with a diagnostic code of Crohn’s disease (CD) (the International Classification of Diseases, Ninth Revision [ICD-9] diagnostic codes 555.0–555.9) were excluded. But patients are often given both diagnostic codes in these databases; what was the algorithm used to include/exclude patients? It is noteworthy that other investigators have used validated algorithms to identify persons with UC and/or CD, implying difficulty in this area.

The possibility for selection bias is also increased because the definition of new users of medication was problematic. New users were operationalized as having no prescription claim in the 3 months prior to the date of the first prescription fill’ [index date]) of a mesalamine treatment (Asacol® or generics, Pentasa®, Salofalk®, or Mezavant®). However, these individuals may be poor adherers or not persistent with medication; a longer time interval such as not having a prescription fill in a 6–month or 1–year period is suggested.

Second, the definition of persistence was missing.

Third, is the possibility for confounding by indication, as patients who switched to another mesalamine treatment were considered as non-persistent to the initial medication. That the authors observed significantly better adherence and
persistence with Mezavant®, which is a new once daily oral treatment, seems to confirm this suspicion. So does the observation that there were fewer users of Mezavant compared to the other medications. Moreover, whereas the RAMQ data for this study covered the years January 1, 2004 to December 31, 2009, Mezavant only became available to Canadian UC patients for maintenance of remission in June 2011.


It should be noted that the authors and the study were funded by Shire, the manufacturer of Mezavant.

Minor points
I don’t think it is possible to calculate a mean age as RAMQ provides information on age categories.

In conclusion, major methodological issues may have accounted for the findings of this study.