Reviewer's report

Title: Development of estimates of dietary nitrates, nitrites, and nitrosamines for use with the Short Willet Food Frequency Questionnaire

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Reviewer: Agata Wawrzyniak

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The paper presents the estimates of nitrates, nitrites and nitrosamines in food items listed in the Short Willet Food Frequency Questionnaire (WFFQ) as adapted for the National Birth Defects Prevention Study (NBDPS) or useful in other research studies, specifically exploring the relation between the intake of these compounds from foods and adverse health outcomes. Because of adverse health effect of nitrites, nitrates and nitrosamines the data for their daily dietary intake are always of interest for both nutritionists and toxicologists.

Comments to the Authors

1. Authors underline that the food database of nitrates, nitrites and nitrosamines was created to estimate dietary intake of these compounds for U.S. women participating in National Birth Defects Prevention Study, giving birth during 1997-2005. None of the publications included in Table 1, for U.S. or Canada, is timely acceptable (collections of data were done in 1973-1988). Only seven publications (23%) (Table 1) present data from that period (1997-2005) but these publications are for South Korea, UK, Sweden, Denmark, Italy, Estonia, New Zealand.

2. It is true that the benefits of fruit and vegetable consumption with their vitamin content most likely diminish the potential harmful effects of nitrate intake from these sources (discussion, page 10, pages 12-14), but pectins, mostly present in fruit, contribute to the increase in the total number of microorganisms and Enterobacteriaceae in the stomach and jejunum what is associated with the reduction of nitrates to more harmful nitrites. Simultaneously, pectins were the fraction that decreased the level of nitrites in conditions of the in vitro gastric juice, but both cellulose and lignin did not.

3. Estimates of nitrates and nitrites in alcoholic beverages (beer, wine) (Table 2, Table 3) are not presented. It is possible to express these values using data for drinking water which is main component of the beverages.

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable
Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:
I declare that I have no competing interests.