The manuscript "Relation between dietary cadmium intake and biomarkers of cadmium exposure" by Julin et al. aims at assessing the relationship between dietary intake and urinary excretion of cadmium, taking into account toxicokinetic modelling. The study is based on a four-day basket survey and questionnaire on diet in a group of post-menopausal women.

Despite its internal validity, the study has a limited external validity (generalizability of results): on the one hand, as the Authors acknowledge, (i) the study group is peculiar within the general population, due to specificities in iron and calcium metabolism, both known to interfere with intestinal absorption of cadmium; (ii) urinary cadmium is not considered to be a good biomarker of exposure until a steady state is reached between intake and renal accumulation, a process requiring months in newly exposed subjects (several studies supporting this notion are available from occupational settings); (iii) therefore, the relationships experimentally found in this studies can only make sense if a relative stability of dietary habits is assumed not only over the 4-day study, but also over previous months/years.

My main concern is that the message conveyed by this paper is potentially misleading, unless the above considerations are discussed and weighted when drawing conclusions.

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

Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:

I declare that I have no competing interests.