Review of: "Population estimates of biomarkers of exposure to carbon monoxide, nicotine, and NNK in smokers and non-smokers"

Abdul Wali Khan

Potential competing interests: The author(s) declared that no potential competing interests exist.

Thanks for giving me the opportunity to review the manuscript entitled_"Population estimates of biomarkers of exposure to carbon monoxide, nicotine, and NNK in smokers and non-smokers"._

The authors have focused on a very important public health area through the review and bringing together of the published data. It is pertinent to mention that the manuscript may also be reviewed from someone who has got exclusive technical experience in areas such as proteomics, molecular biochemical in humans (Biochemistry) regarding the threshold of these mentioned biomarkers of exposure (BOEs) including carbon monoxide (carboxyhemoglobin - COHb), nicotine (Nicotine Equivalents - NEQ), and nicotine-derived nitrosamine ketone (NNK; total urinary 4-[methylnitrosamino]-1-[3-pyridyl]-1-butanol [NNAL] - NNAL). The following is some of the proposed review:

1. The title of the article needs rephrasing so that it gives an idea about the review-study as a whole; also add complete words in place of NNK abbreviation.

2. In Introduction section, please incorporate valid references for the first two sentences.

3. In Methods section, also mention/elaborate on the potential confounders in exposed and controlled groups including their effects and how these were controlled i.e. stratification etc. In Statistical Analysis also include the statistical significance value i.e. p-value for analysis purpose.

4. In Abstract, it is mentioned that a total of 217 scientific articles were identified and reviewed for potential inclusion, 87 studies met the pre-set criteria; while in Results-Literature Search it is mentioned that a total of 195 publications were originally identified including 84 publications that met the initial criteria. There is discrepancy in these figures in both sections. These should be the same and similar.

5. In Results, a comprehensive and consolidative table may be inserted. Table 1 and Table 2 may also be clubbed together in it. Other relevant information may also be incorporated in this table.

6. Discussion section also needs information and the findings need to be compared with similar updated studies findings. Also conclusion section is missing. Also clearly describe the limitations of the study, as well as the strength of this study.