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The Association Between E-cigarette Use and Myocardial Infarction Is What One Would Expect Based on the Biological and Clinical Evidence

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Farsalinos and Niaura[1] state that because we identify e-cigarettes as a "risk factor" for myocardial infarction, we imply "causality" when we clearly only used terms consistent with "associations" when reporting the findings of our study.[2] In particular, "risk factor" is established terminology for describing such associations in cross-sectional studies.[3-5]

In our study, we did not use the 2015 National Health Interview Survey (NHIS) data set because respondents were not asked about e-cigarette use that year. Farsalinos and Niaura ignore the fact that we combined the 2014 and 2016 data in accordance with the Centers for Disease Control and Prevention procedures (reference 18 in our paper[2]). They also ignore the fact that, in addition to the pooled analysis, we reported the analyses of the 2014 and 2016 NHIS data sets separately; the overall conclusion is the same.

It is not surprising that Farsalinos and Niaura found an association between taking medicines to lower cholesterol with having had a myocardial infarction because these drugs are recommended and routinely prescribed for people who have had myocardial infarctions.[6,7] Likewise, it is not surprising that we found an association between using e-cigarettes and having had a myocardial infarction because of the adverse biological and clinical effects that e-cigarettes have on the cardiovascular system that we summarize in our paper.[2]

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