

Peer Review

Review of: "Successful Cessation Programs that Reduce Comorbidity may Explain Surprisingly Low Smoking Rates among Hospitalized COVID-19 Patients"

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This commentary addresses an important early-pandemic paradox: the apparently lower prevalence of smoking among hospitalized COVID-19 patients compared with the general population. The authors provide a balanced and cautious interpretation, arguing against premature conclusions of a protective effect of smoking or nicotine. The presentation of two alternative explanations—misclassification bias during emergency admissions and “reverse causation” via prior smoking cessation in individuals with high-risk comorbidities—is conceptually sound and epidemiologically plausible.

The “smoking cessation” hypothesis is particularly valuable, as it situates the observation within broader public health trends and overlapping risk profiles (e.g., cardiovascular disease, diabetes, COPD). The proposal to utilize longitudinal HMO databases and structured cessation program data to differentiate active smokers, successful quitters, and comorbidity status is methodologically constructive and testable.

However, the manuscript would benefit from stronger acknowledgment of additional confounders such as socioeconomic gradients, differential testing rates, healthcare access, survival bias, and competing mortality risks. Furthermore, while mechanistic speculation regarding nicotinic acetylcholine receptors and ACE2 modulation is scientifically interesting, it should be framed with heightened caution to avoid misinterpretation in public health discourse.

Overall, this is a thoughtful, hypothesis-generating commentary that appropriately emphasizes epidemiologic rigor and warns against simplistic causal interpretations.

Declarations

Potential competing interests: No potential competing interests to declare.