

Peer Review

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

Hany Akeel Al-hussaniy¹

1. University of Baghdad, Iraq

This commentary thoughtfully addresses the early-pandemic observation of unexpectedly low smoking prevalence among hospitalized COVID-19 patients. The authors appropriately caution against interpreting these findings as evidence of a protective effect of smoking or nicotine and provide two plausible alternative explanations: (1) systematic misclassification or underreporting of smoking status during emergency admissions, and (2) reverse causation via prior smoking cessation among individuals with high-risk comorbidities.

The proposed "smoking cessation" hypothesis is particularly compelling, especially given the overlap between tobacco-related diseases (e.g., cardiovascular disease, diabetes, COPD) and established COVID-19 risk factors. The suggestion to leverage longitudinal HMO datasets and structured cessation program records to disentangle active smoking, successful quitting, and comorbidity status is methodologically sound and could meaningfully clarify causal interpretations.

However, the discussion would benefit from a stronger acknowledgment of additional confounders such as socioeconomic status, differential healthcare access, survival bias, and early mortality prior to hospitalization. Moreover, while mechanistic speculation regarding nicotinic acetylcholine receptors and ACE2 modulation is scientifically interesting, it should be framed more cautiously to avoid unintended misinterpretation, particularly in public health contexts where messaging about smoking risk is highly sensitive.

Overall, this is a balanced and hypothesis-generating commentary that appropriately challenges simplistic interpretations and underscores the importance of rigorous epidemiological investigation

before drawing conclusions about smoking and COVID-19 risk.

Declarations

Potential competing interests: No potential competing interests to declare.