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451 - INFLUENZA VACCINATION AND THE OCCURRENCE OF INFLUENZA-RELATED SYMPTOMS IN PRIMARY CARE PATIENTS

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Resumen

Background/Objectives: Influenza vaccination reduces infection risk and severe complications, yet breakthrough infections may still occur. The ability of vaccination to mitigate the occurrence and severity of influenza-related symptoms in patients seeking primary care is still less known, limiting the assessment of the other benefits of vaccination beyond infection prevention. The aim was to evaluate the association between influenza vaccination and the occurrence of influenza symptoms in laboratory-confirmed influenza patients in primary care setting.

Methods: Data were obtained from the VEBIS (Vaccine Effectiveness, Burden and Impact Studies) Primary Care study and included adults (≥ 18 years) who tested positive for influenza by RT-PCR and negative for SARS-CoV-2 and RSV, during 2022/2023-2025/2026 seasons. Eligible participants were vaccinated ≥ 14 days before symptom onset and had respiratory swab collected ≤ 7 days of symptom onset. Collected data included influenza vaccination and symptom onset date, symptoms (dyspnea, myalgia, cough, headache, coryza, sore throat, malaise, fever), age, sex, chronic conditions, and influenza/SARS-CoV-2/RSV lab results. Logistic regression estimated adjusted odds ratios (aORs) for associations between vaccination and symptom occurrence.

Results: Of the 620 influenza-positive patients, 63.7% were female, median age was 45 years (18-95 years), 15.3% had influenza vaccine, and 92.7% had more than three symptoms. Coughing was the most common symptom (95.0%), followed by malaise

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(90.8%) and myalgia (85.7%), while dyspnea was the least reported (15.9%). No symptoms were significantly associated with vaccination status ($p > 0.05$), except for fever. Vaccinated individuals had approximately 46% lower odds of experiencing fever compared to those unvaccinated (aOR = 0.54; 95%CI: 0.29-0.99; $p = 0.047$).

Conclusions/Recommendations: Dyspnea, a symptom that could be used as a proxy for disease severity, was the least frequently reported symptom among patients, suggesting that most cases seen in primary care were mild. This likely explains the absence of an observed association between vaccination and reduced dyspnea occurrence, as more severe and symptomatic cases are more likely to present to secondary care. However, consistent with other studies that used fever as a severity marker, influenza vaccination was significantly associated with lower odds of fever, highlighting its potential role in mitigating certain symptom severity. Further studies are needed to better understand symptom dynamics and the impact of vaccination in the primary care setting.

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