IMMUNIZATION – CHALLENGES AND OPPORTUNITIES

COVID-19 VACCINATION AMONG TUBERCULOSIS PATIENTS IN SERBIA, 2022

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Background: Since the beginning of the pandemic, COVID-19 affected lot of tuberculosis (TB) cases globally. Co-infection can lead to severe acute illness with possibilities of amplification of mortality and chronic lung sequelae. There is lack of data on COVID-19 vaccination coverage among TB cases globally.

Methods and Objectives: A retrospective analysis of COVID-19 vaccination status among TB cases notified in 2022 in Serbia was performed with the aim to compare vaccination coverage with general population in Serbia and to identify factors associated with COVID vaccination among TB patients. We conducted bivariate and multivariable logistic regression statistical analysis.

Results: Out of 468 TB patients notified in 2022, data on COVID-19 vaccination status were available for 399. There was no statistically significant difference between the coverage of at least one dose of COVID-19 vaccine among all TB patients, and patients aged 18+ compared to general population in Serbia (p value >0.05). At least one dose of COVID-19 vaccine was received by 51.6% of all TB patients, while by 55.4% TB patients aged 18+ respectively (compared to 52.1% coverage of all Serbian citizens and 55.6% of Serbian citizens aged 18+). The coverage by primary COVID-19 vaccine series is lower among TB patients aged 12-17 and 18-24 compared to the respective ages of the general population (p values <0.001), and likewise in age groups 60-69 and 70-79, compared to general population (p values <0.05), while similar coverage in age groups 25-49 and 50-59 (p values >0.05). However, it was higher among TB patients aged 80+ compared to general population (p value <0.05). We identified two statistically significant predictors of COVID-19 vaccination among TB patients: at least one comorbidity (OR = 2.41; 95% CI = 1.60-3.60) and age 50+ (OR = 3.33; 95% CI = 2.20-5.04).

Conclusions: We found lower coverage of primary COVID-19 vaccination series among TB patients compared to general population in Serbia. Efforts should be made to increase COVID-19 vaccination coverage among TB patients since COVID-19 and TB co-infection can lead to poorer TB treatment outcomes.

Keywords: tuberculosis, COVID-19, vaccination, Serbia