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902.HEALTH SERVICES AND QUALITY IMPROVEMENT - LYMPHOID MALIGNANCIES

Clinical Outcome of Covid-19 in Haematologic Malignancy Patients with a Fourth Dose of Anti-Sars-Cov-2 Vaccine: A Final Epicovideha Report

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Background: There is a general scepticism on anti-SARS-CoV-2 fourth dose efficacy due to lack of data. In pts with haematological malignancies (HM), this results that only few individuals received a fourth dose. We evaluted the clinical outcome of breakthrough SARS-CoV2 infections in HM who previously received a fourth dose of anti-SARS-CoV-2 vaccine, in particular HM from a multi-national European registry.
Methods: Patients (pts) from the EPICOVIDEHA registry were eligible as long as they could fulfil these criteria: a) active HM within the last five years (ys) before COVID-19 diagnosis, b) pts ≥18 ys old, c) laboratory-based diagnosis of SARS-CoV-2 infection, and d) reception a fourth anti-SARS-CoV-2 dose before COVID-19 diagnosis.
Results. As of August 2023, 6867 HM pts with SARS-CoV-2 infection have been registered in the EPICOVIDEHA registry. Out of these, 51 (0.7%) were diagnosed with COVID-19 after having received a fourth vaccine dose. Most of those (30/51, 58.8%) were male; median age was 71 ys of age (IQR 65-73), with only three pts below the age of 50 ys of age. Twelve pts (12/51, 23.5%) did not present any baseline underlying conditions besides the HM. Lymphoproliferative malignancies were prevalent (47/51, 92%). Most pts had a controlled HM at the time of COVID-19 diagnosis (30, 58.8%). Pts had their fourth vaccine dose at a median of 32 days (IQR 13-54) before COVID-19 diagnosis, almost exclusively mRNA based (50/51, 98%). COVID-19 remained asymptomatic or mild in almost all pts (49/51, 96%), with only one patient with critical infection (2%) requiring intensive care. Hospital admission rate was 47.1% with a median hospital stay of 9 days (IQR 5-14). Only 26 pts (51%) received a specific treatment for SARS-CoV-2, with almost all of them (18/26, 69.2%) receiving monoclonal antibodies. Pts were followed up for a median of 65 days (IQR 26-86) and only two died (3.9%) due to COVID-19.
Conclusions. With the caution derived from the limited number of pts and the intrinsic nature of this study, our data show favourable clinical presentation and outcome of breakthrough SARS-CoV2 infections in HM who previously received a fourth dose of anti-SARS-CoV-2 vaccine. The data suggests that a second vaccine booster may be of particular importance to protect this vulnerable HM patient population from severe or potentially life-threatening COVID-19.

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