

Tolerability of the Dengue Vaccine Qdenga® in German Travellers: a prospective survey

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Global numbers of Dengue fever have been steadily increasing over the last decades. Although for a long time largely ignored in the West, it can now be safely stated that the infection has reached pandemic proportions. Consequently, the risk for infection in travellers has increased significantly over the last years. This is depicted by rising numbers of notified cases in Europe as well as by increasing numbers of travellers with dengue who are treated in destination countries.

In early 2023, Qdenga®, a novel, attenuated vaccine against dengue became available in Germany. At the Berlin Centre for Travel & Tropical Medicine, we vaccinated 20,386 doses in 2023. In order gain data on the tolerability of the vaccine in travellers, we initiated a follow-up survey. Four weeks after each dose, vaccinees who agreed to the survey were contacted by letter, asked to log in on a web site and to complete a short, anonymized questionnaire assessing their travel destination, potential vaccine reactions, and other details. In 2023, 4,220 vaccinees agreed to being contacted and 3,682 completed the questionnaire. Out of these, 2,232 (60.6%) were female. 173 subjects (4.7%) had a prior dengue infection. 133 vaccinees were aged 10-20 years, with the vast majority covering an age range between 20 and 86 years of age. 2,488 subjects received Qdenga® in combination with other travel vaccines.

Concerning adverse reactions, 1,867 subjects (50.7%) answered that they had local reactions, mostly local pain, with 121 (6.5%) scaling them as strong or very strong. Systemic reactions were indicated by 1,536 subjects (41.7%), mostly fatigue and flu-like symptoms. Out of these, 444 (28.9%) scaled them as strong or very strong. A macular rash was described by 621 subjects (16.9%), typically during the second week after the vaccination. The vast majority of adverse events lasted 1-3 days, with single subjects reporting a duration of up to 30 days. A dengue infection during the journey or complications indicating an antibody dependent enhancement were not reported.

To our knowledge, this is the largest ongoing follow-up study on Qdenga® vaccinees in a primarily adult population, and also the largest in travellers. We will present a complete data set covering the first year (end of February 2023 until end of February 2024) of vaccination with Qdenga® in Germany.