

Chikungunya Vaccine Surveillance in German Travel Clinics: A TravVacNet Study

Yannik Eggers^{1,2}, Antonia Paßmann^{2,3}, Camilla Rothe^{2,4}, Gerhard Boecken^{2,5}, Torsten Feldt^{2,6}, Christian Janke^{2,4}, Sabine Jordan^{2,7}, Carsten Köhler^{2,8,9}, Micha Löbermann^{2,10}, Andreas Müller^{2,11}, Hans Martin Orth^{2,6}, Luise Marie Prüfer-Krämer^{2,12}, Johannes Schäfer^{2,13}, Günther Slesak^{2,13}, August Stich^{2,11}, Sabine Bélard^{2,8,9}, Sören Becker^{2,3,14}, Sophie Schneitler^{2,3,15}

¹ Berlin Center for Travel- and Tropical Medicine, Berlin, Germany, ² TravVacNet-Group, ³ Institute of Medical Microbiology and Hygiene, Saarland University, Homburg/Saar, Germany, ⁴ LMU University Hospital Centre, Institute of Infectious Diseases and Tropical Medicine, Munich, Germany, ⁵ Medical Service, German Foreign Office, Regional Medical Office West Africa, Accra, Ghana, ⁶ Department of Gastroenterology, Hepatology and Infectious Diseases, Medical Faculty and University Hospital Düsseldorf, Düsseldorf, Germany, ⁷ Division of Tropical Medicine, I. Department of Medicine, University Medical Center Hamburg-Eppendorf and Department of Tropical Medicine, Bernhard Nocht Institute for Tropical Medicine, Hamburg, Germany, ⁸ University of Tübingen, Institute of Tropical Medicine, Tübingen, Germany, ⁹ German Center for Infection Research (DZIF), Partner Site Tübingen, Tübingen, Germany, ¹⁰ University of Rostock, Department of Infectious Diseases and Tropical Medicine, Rostock, Germany, ¹¹ University Hospital Würzburg, Medical Clinic and Polyclinic II, Infectiology / Tropical Medicine, Würzburg, Germany, ¹² MVZ am Franziskus Hospital, Private Practice for Tropical Medicine and Infectious Diseases, Internal Medicine, Bielefeld, Germany, ¹³ Paul-Lechler Hospital Tübingen, Department of Tropical Medicine, Tübingen, Germany, ¹⁴ Helmholtz Institute for Pharmaceutical Research Saarland, Saarbrücken, Germany, ¹⁵ Institute of Medical Microbiology, Immunology and Hygiene, University Hospital Cologne and Faculty of Medicine, University of Cologne, Cologne, Germany

Background:

This study assessed the real-world tolerability of the recombinant chikungunya VLP vaccine Vimkunya® and the live-attenuated vaccine Ixchiq® in travel clinics of the German Travel Vaccine Network (TravVacNet).

Materials and Methods:

Vaccinees completed anonymous, web-based questionnaires 10 days after vaccination. Data on sociodemographics, travel history, co-administration, and type, severity, and duration of local and systemic adverse events were collected.

Results:

A total of 200 consequential questionnaires were analyzed. Mean age of vaccinees was 41.4 years (range 17–83); 0.5% (1/200) were <18 years and 23.0% (46/200) ≥60 years old; 59% (118/200) were female. Vimkunya® was administered in 81% (163/200) and Ixchiq® in 5% (10/200). Co-administration was reported by 44% (79/200) of vaccinees, most commonly with rabies (26%; 37/200), Japanese encephalitis (15%; 21/200), and typhoid fever vaccines (11%; 16/200). Vaccination reactions were reported by 96 participants (48%). Local reactions were mild, predominantly presenting as pain (mean score 1.9 on a 0–6 scale; 0 = minimum, 6 = maximum symptoms). Systemic reactions were generally rather mild, with weakness (2.1; n=101), flu-like symptoms (1.6; n=101), headache (1.5; n=99), and discomfort (1.4; n=96) showing the highest mean severity scores. Overall symptom severity peaked during days 0–3 (mean 2.7), and declined during days 4–10 (mean 1.0) and days 11–16 (mean 0.3). Chikungunya vaccine tolerability was rated 8/10 (0 = very negative; 10 = very positive).

Conclusion:

TravVacNet data indicate favourable real-world tolerability of chikungunya vaccination in routine travel medicine practice, including co-administration settings.