Superior
Health Council

Vaccination against chikungunya

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Superior Health Council

ADVISORY REPORT OF THE SUPERIOR HEALTH COUNCIL no. 9905

Vaccination against chikungunya

In this scientific advisory report, which offers guidance to public health policy-makers, the Superior Health Council of Belgium provides updated recommendations of vaccination against chikungunya.

This version was validated by the NITAG on January 29th, 2026
This version was validated by the Board on March 4th, 2026[1]

I INTRODUCTION

Chikungunya virus (CHIKV), an arthropod-borne alphavirus transmitted primarily by *Aedes aegypti* and *Aedes albopictus* mosquitoes, poses a health risk for Belgian travellers visiting endemic regions or regions with an outbreak. The disease is characterized by acute fever, rash, and debilitating polyarthritis or polyarthralgia. Joint pain can persist for months or even years, leading to significant discomfort and disruption in daily activities.

Due to the absence of specific antiviral treatments, chikungunya prevention has historically relied on vector control measures and personal protective strategies.

However, these approaches have been insufficient to prevent infection in endemic regions and among travellers. Therefore, vaccines have been developed as an additional preventive option against chikungunya: the live-attenuated vaccine **Ixchiq®** and the virus-like particle (VLP) vaccine, **Vimkunya®**.

Ixchiq® is available on the Belgian market since 2025. Vimkunya® is expected to become available in Belgium in the second quarter of 2026. Over the past year, additional post-marketing data on Ixchiq® have become available, requiring a reassessment of its use. As a result, the recommendations for vaccination against chikungunya have been updated.

The Summary of Product Characteristics (SmPC) of Ixchiq® and Vimkunya® can be found on the European Medecines Agency (EMA) website:

- Ixchiq®: https://www.ema.europa.eu/en/medicines/human/EPAR/ixchiq
- Vimkunya®: https://www.ema.europa.eu/en/medicines/human/EPAR/vimkunya

[1] The Council reserves the right to make minor typographical amendments to this document at any time. On the other hand, amendments that alter its content are automatically included in an erratum. In this case, a new version of the advisory report is issued.

II CONCLUSIONS AND RECOMMENDATIONS

INDICATIONS OF VACCINATION AGAINST CHIKUNGUNYA

Vaccination against chikungunya **is recommended for people** travelling to a region with a **high risk of infection** (i.e. during an outbreak).

Consider vaccination in **people travelling to moderate risk areas** taking into account **additional factors** such as the duration of the journey (e.g. > 3 months), frequent travel (resulting in a comparable cumulative exposure) and underlying conditions which might increase the risk of more severe chikungunya symptoms.

Vaccination is recommended for **laboratory workers handling live chikungunya virus**.

Vaccination is **not indicated** for travellers to areas with low-level circulation or localised small clusters (e.g. France or Italy). Vaccination is also not recommended for people who have had a laboratory-confirmed infection with chikungunya, as the infection is presumed to provide lifelong immunity.

The vaccine should be administered **at least 14 days before departure**.

Two chikungunya vaccines are available: **Ixchiq®** (live attenuated) and **Vimkunya®** (VLP), both approved from **≥12 years**. More information on the choice of the vaccine can be found in chapter 4.

Ixchiq® is a live attenuated vaccine and therefore **contraindicated** for:

- Pregnant and lactating women
- Immunocompromised individuals

Given concerns regarding the reactogenicity and vaccine-related adverse events **Ixchiq®** is **not recommended** for:

- Frail individuals
- Individuals with uncontrolled comorbidities
- People aged ≥ 60 years, in alignment with yellow fever vaccine guidance.

If the use of Ixchiq® is considered in one of these categories, it should be done after a thorough individual risk–benefit assessment in approved travel clinics.

Whether these adverse events also occur with **Vimkunya®** has not been observed so far, noting that clinical experience is more limited and significantly fewer people have received the vaccine to date.

**For countries or regions where vaccination is recommended, the HCH refers to www.wanda.be*

Reporting of adverse events

Patients and healthcare providers are encouraged to declare possible adverse effects following vaccination to the health authority in charge of post-marketing surveillance. Reporting of adverse reactions can be done directly to:
www.notifieruneffetindesirable.be or **www.eenbijwerkingmelden.be**.

III TABLE OF CONTENTS

Keywords

Keywords	Sleutelwoorden	Mots clés	Schlüsselwörter
Vaccination	Vaccinatie	Vaccination	Impfung
Chikungunya	Chikungunya	Chikungunya	Chikungunya-Fieber
Outbreak	Uitbraak	Outbreak	Ausbruch
Travel medicine	Reisgeneeskunde	Médecine de voyage	Reisemedizin

IV METHODOLOGY

The Board and the co-presidents of the National Immunization Technical Advisory Group (NITAG) identified the necessary fields of expertise. An *ad hoc* working group was set up which included, among others, experts in travel medicine, paediatrics, infectiology and epidemiology. The experts of this working group provided a general and an *ad hoc* declaration of interests and the Committee on Deontology assessed the potential risk of conflicts of interest.

This advisory report is based on a review of the scientific literature published in both scientific journals and reports from national and international organisations competent in this field (peer-reviewed), as well as on the opinion of the experts.

For this report, meetings with other international experts were organised to exchange knowledge and to try to harmonise recommendations. At the time of publication, meetings with experts from other European countries and the European Centre for Disease Control (ECDC) are ongoing to support harmonisation and to define different risk levels for chikungunya acquisition in travellers.

Once the advisory report was endorsed by the working group and NITAG it was ultimately validated by the Board.

The Belgian Study Group Travel Medicine endorsed the recommendations.

This document was developed with the support of artificial intelligence tools for linguistic improvement, used under human supervision, and underwent several cycles of expert review and validation.

V ELABORATION AND ARGUMENTATION

List of abbreviations used

CHIKV	Chikungunya virus
CHMP	Committee for Medicinal Products for Human Use
ECDC	European Centre for Disease Control
EMA	European Medicines Agency
NITAG	National Immunization Technical Advisory Group
NT80	Antibody titres sufficient to neutralize 80%
SAE	Serious Adverse Effect
SHC	Superior Health Council
SNA	Serum Neutralizing Antibody
SmPC	Summary of Product Characteristics
VLP	Virus-like particle

1 Chikungunya virus

CHIKV is transmitted to humans primarily by *Aedes aegypti* and *Aedes albopictus* mosquitoes. Upon infection, the virus replicates in the host's body, leading to a robust immune response. CHIKV directly enters subcutaneous capillaries and infects susceptible cells in the skin, including macrophages, fibroblasts, and endothelial cells. From there, the virus spreads to secondary lymphoid organs and eventually enters the bloodstream, allowing it to reach various parts of the body, including the liver, muscles, joints, and in severe cases, the brain.

Vertical transmission is rare but has been documented (CDC). The greatest risk occurs in the perinatal period when the pregnant woman is viraemic at the time of delivery. Additionally, chikungunya viral RNA has been identified in semen, but no evidence of sexual transmission has been noted to date (Silva et al., 2017).

1.1 Reservoirs

Humans are the major reservoir of chikungunya virus. However, in Africa natural hosts of chikungunya virus are wild primates bitten by forest-dwelling *Aedes* mosquitoes.

1.2 Symptoms

Approximately 3%–28% of people infected with chikungunya virus will remain asymptomatic.

CHIKV disease is characterised by an abrupt onset of fever, frequently accompanied by severe joint pain. Chronic arthritis and arthralgia are common long-term effects of chikungunya infection, with prevalence ranging from 25% to 75% of patients, depending on factors like geography, virus strain, and individual health conditions. The joint pain is often debilitating and usually lasts for a few days but may be prolonged, lasting for weeks, months or even years. Other common signs and symptoms include joint swelling, muscle pain, headache, nausea, fatigue, and rash.

Since these symptoms overlap with other infections, including those with dengue and Zika viruses, cases can be misdiagnosed. In the absence of significant joint pain, symptoms in infected individuals are usually mild, and the infection may go unrecognized.

Most patients recover fully from the infection; however, occasional cases of eye, heart, and neurological complications have been reported with CHIKV infections. Patients at extremes of the age spectrum are at higher risk for severe disease. Newborns infected during delivery and older people with underlying medical conditions may become severely ill and CHIKV infection can increase the risk of death (WHO fact sheet).

1.3 Incubation period

CHIKV disease onset is typically 4–8 days (range 2–12 days) after the bite of an infected mosquito.

1.4 Epidemiology and risk areas

1.4.1 Worldwide

Chikungunya primarily affects regions in the tropics and subtropics, with significant disease burden reported in Central and South America, Africa, and Southeast Asia. It often occurs in large outbreaks with high attack rates.

Large-scale outbreaks were reported in 2004-2007 from Kenya, Comoros islands, La Reunion, Mauritius, and then spread to various Indian states and Southeast Asia. In 2013, chikungunya virus emerged on the island of Saint Martin in the Caribbean and then quickly spread in the Americas. This was the first documented autochthonous transmission of chikungunya virus in the Americas. By February 2015, nearly 1.2 million suspected and confirmed cases of chikungunya virus disease were reported in the Caribbean and other regions of the Americas. In 2025, about 486 000 cases and 229 associated deaths were reported worldwide, including cases reported in Europe and outermost regions. Most of the cases in 2025 were reported in the Americas, especially from Brazil and Cuba, and in the Indian Ocean, from the French outermost islands of La Réunion and Mayotte. A significant number of cases were also reported from Asia (India, Pakistan and China).

1.4.2 Europe

Chikungunya is not endemic in Europe, and the majority of the cases are imported by travellers infected in endemic areas. When the environmental conditions are favourable in areas where *Ae. albopictus* is established, local transmission of the virus can occur. This was demonstrated in 2007 for the first time in Italy with 217 laboratory-confirmed locally acquired cases. Since then, several outbreaks involving local transmission have been documented in Europe (Italy and France). In 2025, France reported 788 (79 clusters) and Italy 384 (7 clusters) locally acquired cases. The particularly large number of cases reported in France in 2025 are linked to the epidemic in La Réunion and the broader Indian Ocean region, driven by a viral strain that is highly adapted to the *Aedes albopictus* mosquito. This invasive mosquito is well established in southern Europe and continues to expand to more northern regions.

1.4.3 Belgium

The number of reported cases in Belgium is low between epidemics, averaging around 10 to 15 cases per year. An increase in reported cases is seen during epidemics, such as the outbreak in the Caribbean in 2014, the epidemic in Thailand and the Democratic Republic of Congo in 2019. While in 2023 and 2024, 14 and 15 imported cases were reported respectively, in 2025 the number increased up to 130, attributable to the outbreaks in La Réunion, Cuba and Sri Lanka.

1.5 Risk factors

1.5.1 Risk factors for being exposed to CHIKV

- **Visiting outbreak regions:** Individuals travelling to areas with an active chikungunya outbreak are at greatest risk, particularly those engaging in outdoor activities such as hiking, camping, or rural tourism.
- **Visiting areas with a higher level endemicity or with an increasing incidence:** Travellers, long-term residents or frequent travellers to regions with ongoing or increasing chikungunya transmission are at risk, but to a lesser extent compared to visiting outbreak regions.
- **Handling CHIKV samples in laboratories:** Individuals working in research or diagnostic laboratories with live chikungunya virus.
- Visiting areas with **low background circulation** of chikungunya or countries with **localised small clusters** (e.g. in France or Italy) is considered as low risk.

1.5.2 Risk factors for developing severe acute symptoms

Atypical and severe acute complications, albeit rare, include myocarditis and other cardiological complications, acute hepatitis, renal failure, ocular and neurologic disorders including Guillain-Barré syndrome and acute encephalitis.

- **Individuals with pre-existing medical conditions:** People with chronic illnesses,such as diabetes, cardiovascular diseases, or rheumatoid arthritis, who may experience more severe symptoms if infected (Micheleto et al., 2025).
- **Elderly:** Individuals aged ≥ 60 years of age (Micheleto et al., 2025).
- **Pregnant women- newborns infected peripartum:** Women who are pregnant have symptoms and outcomes similar to those of other people, and most infections that occur during pregnancy will not result in the virus being transmitted to the fetus. Intrapartum transmission can, however, result in neonatal complications, including hemorrhagic symptoms, myocardial disease, and neurologic disease. Rare spontaneous abortions after first-trimester maternal infection have been reported (Basurko et al., 2022).

1.5.3 Risk factors for developing chronic symptoms (arthralgia)

Although acute symptoms typically resolve within ten days, some patients may have a persistence or relapse of rheumatologic symptoms such as polyarthralgia, polyarthritis and tenosynovitis following the acute illness (Grobush et al., 2022). Risk factors for the development of chronic symptoms include:

- Older age (> 45 years)
- Preexisting chronic inflammatory arthropathy
- East/Central/South African diverged genotype (Paixão et al., 2018)
- Increased severity of symptoms during the acute phase (arthralgias, body aches and weakness)
- Increased viral loads during the acute stage
- Diabetes Mellitus (Badawi et al., 2018).

2 Ixchiq®

Ixchiq® is a **live-attenuated vaccine** derived from the strain isolated from the outbreak in La Réunion in 2006.

We refer to the SmPC of Ixchiq® on the EMA website for more details on the vaccine: https://www.ema.europa.eu/en/documents/product-information/Ixchiq-epar-product-information_en.pdf

Given the nature of the vaccine, standard contra-indication as for life attenuated vaccines apply, but after reported serious adverse events, additional safety warnings have been implemented.

2.1 Posology and method of administration

- The vaccine is administered as a single 0.5 mL intramuscular dose in the deltoid muscle within 2 hours of reconstitution.
- Immunization should be completed at least two weeks before departure to ensure optimal immune response.
- The need for booster doses has not yet been established yet.

2.2 Efficacy

Real-world efficacy data on the protection against disease in humans are not available for Ixchiq®. There is no established immune correlate of protection for chikungunya. The clinical efficacy of Ixchiq® was inferred from a postvaccination CHIKV-specific neutralizing antibody titre threshold.

The threshold of µPRNT50 titre ≥150 was selected as surrogate marker for protection, referred to as seroresponse. This threshold was determined from a non-human primate passive transfer study in which animals with titres ≥150 were protected against wild-type CHIKV infections and had undetectable virus in blood during 14 days after the challenge (Roques et al., 2022). In addition, the threshold was supported by data obtained from a prospective human seroepidemiological study (Yoon et al., 2015, 2020). It is still unclear how this threshold translates into protection against disease (including chronic chikungunya) and/or infection.

Limited data suggest that Ixchiq® induced antibodies are able to cross-neutralize wild-type CHIKV strains from 3 CHIKV genotypes (IOL/ECSA, West African and Asian) (Lin et al., 2024).

2.2.1 Seroresponse rate

In the pivotal trial VLA1553-301 conducted in adults, 1.6% (4/251) and 98.9% (263/266) of the participants who received Ixchiq® presented a CHIKV-specific post-vaccination neutralizing antibody titers ≥150 µPRNT50 at day 8 or 28 days respectively. The participants were negative at baseline (pre-vaccination) for CHIKV-specific neutralizing antibodies. This percentage was sustained up to 6 months post-vaccination (96.3%, 233/242).

In the trial VLA1553-321 conducted in adolescents (12 to <18 years of age), 98.8% (248/251) of the CHIKV seronegative participants presented CHIKV-specific neutralizing antibody titers ≥150 µPRNT50 at 28 days and 99.1% (232/234) at 6 months post-vaccination. Only 5.7% (14/245) had CHIKV-specific neutralizing antibody titers ≥150 µPRNT50 at Day 8.

In participants who were pre exposed to CHIKV before vaccination, the vast majority (50/52) presented CHIKV-specific neutralizing antibody titers ≥150 µPRNT50 before vaccination with

IXCHIQ. The percentages remained in the same range 28 days post-vaccination (52/52) and 6 months post-vaccination (45/46).

A study published in October 2024 reported that Ixchiq® reaches high geometric mean titers (GMTs) at 14 days post-vaccination (Chen et al., 2024).

2.2.2 Antibody persistence

Persistence of the immune response is evaluated in VLA1553-303 extension study (follow up of a subset of participants of study of VLA1553-301). In this extension study, 96% of the participants had neutralizing antibodies above the threshold at 3 years. The study aims a yearly follow-up until 10 years post vaccination. All the participants were negative at baseline (pre-vaccination) for CHIKV-specific neutralizing antibodies.

2.3 Safety

Following reports of serious adverse events in older adults, the European Medicines Agency (EMA) advised on the 7th of May 2025 to temporarily suspend the use of the Ixchiq® chikungunya vaccine in individuals aged 65 years and older. This decision was lifted after review of the data and replaced by a warning that use of Ixchiq® should be carefully evaluated by the healthcare professionals on an individual basis.

Serious adverse reactions have been reported with the use of Ixchiq®, particularly in males ≥ 65 years and in individuals with multiple underlying chronic and/or uncontrolled medical conditions such as cardiovascular disease, diabetes mellitus or chronic kidney disease.

Severe reactogenicity or chikungunya-like adverse reactions may lead to deterioration of general conditions including malaise and decreased appetite, exacerbation of pre-existing diseases, confusional state, encephalopathy, or encephalitis, leading to falls, hospitalisation and death.

At the time of the update of this advice, a SAE in a younger adult with no known comorbidities is under investigation Reference: 2026_01_19_IXCHIQ_US_Licence_Withdrawal_PR_EN_Final.pdf.
New safety information will be reviewed by the SHC as soon as it becomes available and can, if required, prompt a change in guidance.

Vaccinees should be instructed to promptly seek medical attention if they experience, after vaccination, symptoms suggestive of severe chikungunya-like adverse reactions or deterioration of their clinical condition.

2.3.1 General adverse events

The initial overall review of the safety of Ixchiq® is based on the analysis of the pooled safety data from three completed phase I and III clinical studies conducted in the US on 3 610 participants ≥18 years old and 502 adolescents between 12 and 18 years old in Brazil of whom 18,7% of 94 adolescents had pre-existing antibodies against CHIKV. The participants received one dose of Ixchiq® with a follow-up of 6 months.

The most common vaccination site reactions in adults and adolescents were tenderness (10.8% and 19.9%) and pain (6.1% and 19.3%). The most common systemic adverse reactions were headache (32% and 51.0%), fatigue (29.4% and 22.3%), myalgia (23.7% and 26.9%), arthralgia (16.6% and 12.9%), fever (13.8% and 24.1%) and nausea (11.4% and 15.9%).

2.3.2 Chikungunya-like adverse reactions

As Ixchiq® is a live-attenuated vaccine, a definition of chikungunya-like adverse reactions was used to evaluate retrospectively potential vaccine-related disease in the pooled safety data from phase I and III clinical studies. Chikungunya-like reactions were reported in 12.1% of adults and 23.1% of adolescents, most commonly fever in combination with headache, fatigue, myalgia, or arthralgia. The majority of symptoms were mild, with a median onset of 2–3 days after vaccination and a median duration of 4 days. Symptoms lasting ≥30 days were rare (0.4% in adults, none in adolescents). The proportion of participants that experienced chikungunya-like adverse reactions was higher in baseline seronegative participants than in baseline seropositive participants (SmPC Ixchiq).

2.3.3 Safety warnings post licensure on serious adverse events

At the time of the EMA review of emerging safety data (EMA, 2025), an estimated 37 917 doses of Ixchiq® had been administered across La Réunion, mainland France (including overseas departments), other EU countries, the United States, and Canada. Among these, it is estimated that 43% (16 236 doses) were administered to individuals aged 65 years and older.

Overall, 28 serious adverse events were identified and assessed. The new post-marketing safety data indicated an increased risk of serious adverse reactions in elderly individuals (22 out of 28 serious cases [79%] were reported in individuals ≥ 65 years of age) and in individuals with at least one underlying chronic and/or uncontrolled medical condition. Of the 26 cases (93%) with comorbidities, 23 patients had multiple comorbidities, mostly chronic conditions such as hypertension, diabetes mellitus and cardiovascular disease. In addition to age and medical history, a higher proportion of serious cases has been reported in males (22/28 [79%]).

The cases reviewed showed a pattern of chikungunya-like adverse reactions and severe reactogenicity with general health deterioration, falls, exacerbation of chronic medical conditions, cardiac events, and neurological events, which in 18 cases involved hospitalisation, and, in 3 cases, death. The neurological events included cases of encephalopathy, encephalitis, and aseptic meningitis.

Information on the risk of serious adverse reactions in younger adults with underlying medical conditions is limited. A SAE in a younger adult is under investigation at the moment of the update of this advice Reference: 2026_01_19_IXCHIQ_US_Licence_Withdrawal_PR_EN_Final.pdf.

2.4 Contra-indications

The vaccine is contraindicated for:

- Patients with a history of severe allergic reaction to vaccine components
- Immunodeficient or immunosuppressed individuals due to disease or medical therapy, e.g. malignancies, chemotherapy, immunosuppressive therapy, inborn errors of immunity, or HIV infection with CD-4 count <200/µL
- Pregnant and lactating women (see section 5)
- Patients under 12 years of age: Ixchiq® has not been studied in children <12 years.

Not recommended
Serious adverse reactions have been reported with the use of Ixchiq®, particularly in individuals aged 60 years and older and in frail individuals with multiple underlying chronic and/or uncontrolled medical conditions. Therefore, vaccination is not recommended in:

- Individuals aged ≥ 60 years.
- Frail individuals or individuals with several comorbidities such as cardiovascular disease, diabetes mellitus or chronic kidney disease.

If vaccination with Ixchiq® is considered, this should be done after a thorough individual risk-benefit assessment in approved travel clinics.

2.5 Co-administration

There are no data on the safety and immunogenicity following concomitant administration of Ixchiq® with other vaccines. In general, it is recommended to administer 2 life attenuated vaccines with at least 4 weeks interval.

For non-live (inactivated) vaccines, the SHC recommends an interval of 2 weeks between administrations until more data on co-administration are available. However, if this interval cannot be respected, the vaccines may be administered during the same visit, as the SHC considers that non-live vaccines usually do not interfere with one another.

3 Vimkunya®

Vimkunya® is a recombinant virus-like particle (VLP) vaccine, with aluminium hydroxide as an adjuvant. It consists of three recombinant structural proteins derived from the CHIKV Senegal strain 37997. It is thought that Vimkunya® can induce protection from CHIKV infection and thus prevent disease by eliciting antibodies against the viral proteins C, E1, and E2 resulting in neutralisation of the infective activity of live virus.

We refer to the SmPC of Vimkunya® on the EMA website for more details on the vaccine: https://www.ema.europa.eu/en/documents/product-information/vimkunya-epar-product-information_en.pdf

3.1 Posology and method of administration

- The vaccine is administered as a single 0.8 mL intramuscular dose in the deltoid muscle.
- The need for booster doses has not yet been established yet.

3.2 Efficacy

Real-world efficacy data on the protection against disease in humans are not available for Vimkunya®. There is no established immunological correlate of protection against disease caused by chikungunya virus.

The serum neutralising antibody (SNA) threshold of NT80 ≥ 100 titre is used as a surrogate immunogenicity parameter based on a prospective human sero-epidemiologic study (Yoon et al., 2015) and supported by challenge studies in non-human primates.
A non-human primate passive challenge study using pooled sera from humans vaccinated with CHIKV VLP vaccine and a SC CHIKV challenge (in PAS-NHP-CHIK003) demonstrated protection against circulating CHIKV in the treated animals.

3.2.1 Seroresponse rate

The immunogenicity of a single dose Vimkunya® was evaluated in two pivotal phase 3 studies conducted in the US: one in adolescents and adults aged 12 to <65 years (Study 1) and one in adults aged ≥65 years (Study 2), both studies included a follow-up period of 6 months.

In Study 1 (**12 to <65 years**), the immune response of 2559 baseline-seronegative participants who received Vimkunya® was analysed, demonstrating a seroresponse rates of 47% at Day 8, 97% at Day15, 98% at Day22 and 85.5% at Day183. This indicates a relative rapid onset of immune response within the first weeks after vaccination, peaking around Days 15–22.

In Study 2 (**≥65 years**, with 77% of participants aged 65 to <75 years and 23% aged ≥75 years), immunogenicity was evaluated in 189 baseline-seronegative participants who received Vimkunya®. Seroprotective titres were observed in 82% at Day 15, 87% at Day 22, and 76% at Day 183. Although data for some age subgroups are limited, an **overall age-related decrease in seroresponse rates** was observed at Day 22, particularly in participants aged ≥65 years, with seroresponse rates of 97.0% in those aged 12 to <18 years, 98.3% in those aged 18 to <46 years, 97.2% in those aged 46 to <65 years, 87.9% in those aged ≥65 to <75 years, and 85.0% in those aged ≥75 years.

Vimkunya® has not been assessed in patients with immunodeficiency and patients using systemic immunosuppressive therapies. Therefore, it is not known whether individuals with impaired immune responsiveness, will elicit the same response as immunocompetent individuals to the vaccine.

3.2.2 Antibody persistence

Antibody levels remained above the threshold at 6 months but were noticeably lower in both younger adults and adults aged ≥65 years, with seroresponse rates of 85% and 76%, respectively (Hills et al., 2025; Tindale et al., 2025). Additional follow-up analyses at 2 years are ongoing, and long-term immunogenicity monitoring is planned for up to 6 years (Tindale et al., ASTMH poster, 2025).

3.3 Safety

The initial overview of the safety is based on an analysis of the pooled safety data gathered from three completed phase 2 studies and two completed phase 3 studies on 3 522 participants ≥ 12 years old who received Vimkunya®. These participants were followed up for serious adverse events over the entire study period of 182 days.

The most common reactions were injection site pain (24.0%), fatigue (17.8%), headache (16.7%) and myalgia (16.5%). Other common reactions were chills, arthralgia, malaise and nausea. More details can be found in the SmPC.

3.4 Contra-indications

The vaccine is contraindicated for:

- Patients with a history of severe allergic reaction (e.g. anaphylaxis) to vaccine components
- Children < 12 years of age, as there are no data available.

3.5 Co-administration

Vimkunya® is not recommended to be co-administered with other vaccines because there are no data on the safety and immunogenicity following concomitant administration of Vimkunya® with other vaccines. However, the Superior Health Council assumes that interference with other vaccines is unlikely.

3.5.1 Safety post licensure

Early post-marketing experience shows a safety profile consistent with clinical trials. Up to 31 August 2025, over 12,500 doses were administered in US and Germany, no SAEs in ≥ 65-year-olds were reported (Simone et al., 2025).

4 Considerations for vaccine selection

The **efficacy** of both vaccines is inferred from surrogate immunogenicity endpoints rather than from clinical efficacy data. For both vaccines, the serum neutralizing antibody response against chikungunya virus was used as the primary measure of efficacy.
The endpoint used in Ixchiq® trials was a 50% neutralizing antibody titre of ≥150 measured by a micro plaque reduction neutralization test and for Vimkunya® trials was an 80% neutralizing antibody titre of ≥100 using a luciferase-based neutralizing antibody assay.

While the absence of a head-to-head study and the differences in used data collection time frames, study populations and surrogate endpoints in the pivotal trials, limit comparative inferences of the two vaccines, several different characteristics should be considered when advising individual travellers (Hills et al, 2025).

4.1 Onset of immune response

Vimkunya® seems to initiate an earlier immune response compared to Ixchiq® (see section 2.2). While no direct comparative trials are available, the early response profile of Vimkunya® may therefore be operationally useful in last-minute travel contexts.

4.2 Persistence of seroresponse

Ixchiq® currently has data up to 3 years showing persistence of the seroresponse rate at 3 years (96%) post-vaccination, comparable between younger adults (18–64 years) and older adults (≥65 years) throughout the follow up.
Natural chikungunya virus infection is considered to confer lifelong immunity. Although long-term durability of antibody responses is commonly observed with other live-attenuated vaccines, such as yellow fever vaccine, this has not yet been established for Ixchiq®.

Vimkunya® currently has data with seroresponse rate up to 6 months of 85% in adolescents and younger adults and 76% in older adults, which is noticeably lower compared with rates at 14-21 days in both age groups. No data at > 6 months post-vaccination are available as from January 2026 and additional data will be important to determine the potential need for and timing of a booster dose.

4.3 Safety

Ixchiq® is a live-attenuated vaccine and is therefore associated with greater safety concerns, particularly in older adults and frail individuals. Although immunogenicity data in individuals aged over 60 years, people with co-morbidities are limited and there are no data in pregnant and lactating woman, fewer safety concerns are anticipated with the non-live vaccine Vimkunya®.

	Ixchiq®	**Vimkunya®**
Vaccine platform	Live attenuated	Virus like particle
Target age group	≥12 years to ≤59 years	≥12 years
Frail individuals	Not recommended	Recommended*
Co-morbidities	Not recommended**	Recommended*
≥ 60 years	Not recommended	Recommended*

Immunocompromised individuals	Contraindicated	Recommended*
Pregnancy	Contraindicated	May be considered if travel is unavoidable*
Lactation	Contraindicated	May be considered if travel is unavoidable*

**Limited or no data are available for this specific category.*
*** Individuals with multiple underlying chronic and/or uncontrolled medical conditions such as cardiovascular disease, diabetes mellitus or chronic kidney disease.*

5 Pregnancy and lactation

5.1 Pregnant women

Pregnant women should avoid the risk for chikungunya virus infection by avoiding travel to an area with virus transmission particularly during an outbreak (Hills et al., 2025).

Safety data on the use of both vaccines in pregnant women are limited:

- Ixchiq®: effects on pregnancy, embryo-foetal development, parturition and post-natal development cannot be excluded. Therefore, and in line with the recommendations for other life attenuated vaccines, the use is contra-indicated in pregnant women.

- Vimkunya®: developmental and reproductive toxicity studies (DART) after multiple doses of Vimkunya® showed no vaccine-related adverse effects on fertility or embryofetal development in rats or rabbits, although a reduced postnatal survival index of uncertain clinical relevance was observed in rabbits. There are no data in pregnant women.

Due to the limited human safety data available, the SHC advises against vaccination in pregnant woman. However, when the risk of infection is high (e.g. during an outbreak) and exposure cannot be avoided, vaccination with Vimkunya® can be considered after a discussion of risks and benefits. This is based on the general principle that vaccination with a non-live vaccine is preferred over a live vaccine for pregnant women.

5.2 Lactation

It is unknown whether Ixchiq® is excreted in human milk and potential risks to the breastfed infant cannot be excluded. Therefore, its use is contra-indicated during breastfeeding.

As a precaution, vaccination is not routinely recommended but may be considered when the maternal exposure risk is elevated. In such cases, Vimkunya® should be preferred in line with best-practice immunization guidelines, which indicate that non-live vaccines pose no risk to breastfeeding mothers or their infants.

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VII COMPOSITION OF THE WORKING GROUP

The composition of the Committee and that of the Board as well as the list of experts appointed by Royal Decree are available on the following website: About us.

All experts joined the working group ***in a private capacity***. Their general declarations of interests as well as those of the members of the Committee and the Board can be viewed on the SHC website (site: conflicts of interest).

The following experts were involved in drawing up and endorsing this advisory report. The working group was chaired by **Ula MANIEWSKI-KELNER**; the scientific secretaries were Laura KOSTOV and Veerle MERTENS.

ALDERS Nele	Pediatrics, Infectiology, Travel and Tropical Medicine	ITG
MANIEWSKI-KELNER Ula	Infectiology, travel medicine	ITG
MALOTAUX Jiska	Infectiology, travel medicine	UZ Gent
REBOLLEDO ROMERO Javiera	Epidemiology, infectiology	Sciensano

The following experts were heard but did not take part in endorsing the advisory report:

SABBE Martine	Pharmacovigilance assessor	FAGG AFMPS

The standing working group NITAG has endorsed the advisory report. The document was presented at the NITAG meeting of January 29, 2026. The NITAG meeting was co-chaired by **David TUERLINCKX** and **Steven CALLENS**. The scientific secretaries were Laura KOSTOV, Veerle MERTENS and Michael PEETERS. The following members approved the document by e-mail on February 11, 2026:

ALDERS Nele	Pediatrics, Infectiology, Travel and Tropical Medicine	ITG
BEUTELS Philippe	Social Sciences, Health Care Economics and Organizations, Infectious Disease Medicine.	UAntwerpen, CHERMID, SIMID
BLUMENTAL Sophie	Pediatrics, Infectious Disease Medicine, Vaccinology, Primary Immunodeficiency Diseases, Pneumococcal Infections, Tuberculosis.	ULB, CHIREC
BOIY Tine	Pediatrics, Rare Diseases, Congenital Hereditary and Neonatal Diseases and Abnormalities, Down Syndrome.	UAntwerpen, UZA
BRASSEUR Daniel	Pediatrics, Pharmacology, Nutritional Sciences.	ex-ULB
CALLENS Steven	Internal Medicine, Infectious Disease Medicine, Emerging Communicable Diseases, Travel Medicine, Vaccinology, Tuberculosis, AIDS-HIV, Ebola, COVID-19.	UGent, UZ Gent

CARRILLO SANTISTEVE Paloma	General Practice, Infectious Disease Medicine, Vaccinology, Preventive Medicine, Public Health.	ONE
CHATZIS Olga	Pediatrics, Infectious Disease Medicine, Congenital Hereditary and Neonatal Diseases and Abnormalities, Vaccinology.	UCLouvain, Cliniques universitaires Saint-Luc
CORNELISSEN Laura	Obstetrics, Gynecology, Epidemiology, Infectious Disease Medicine, Maternal Health, Public Health.	Sciensano
DAELEMANS Siel	Pediatrics, Infectious Disease Medicine, Pulmonary Medicine, Cystic Fibrosis, RSV, COVID-19.	VUB, UZ Brussel
DE COSTER Ilse	Head of the Ambulatory Trial Unit	UAntwerpen
DESMAELE Sara	Pharmacology	CBIP/BCFI
CHRISTIAENS Thierry	Pharmacology.	CBIP/BCFI, UGent
DE SCHEERDER Marie Angélique	Internal Medicine, Infectious Disease Medicine, Travel Medicine, AIDS-HIV, Anti-Bacterial Agents.	UGent, UZ Gent
DE SCHRYVER Antoon	Occupational and environmental medicine	U Antwerpen
DESMET Stéfanie	Clinical microbiology, epidemiology	UZ Leuven, NRC for Pneumococci
DOGNE Jean Michel	Pharmacy and pharmacovigilance	U Namur, AFMPS, EMA
FLAMAING Johan	Geriatrics, infectiology, epidemiology and oncology	UZ Leuven
FRERE Julie	Pediatrics and infectiology	CHU Liège
GOETGHEBUER Tessa	Pediatrics and infectiology	CHU St Pierre, ONE
LEROUX-ROELS Isabel	Vaccinology, infection prevention and microbiology	UZ Gent
MAERTENS Kirsten	Vaccinology and maternal immunization	U Antwerpen
MANIEWSKI-KELNER Ula	Infectiology and travel medicine	ITG-IMT-ITM
ROBERFROID Dominique	Epidemiology, anthropology and health sciences	KCE, UNamur
ROSSI Camelia	Infectiology, HIV, travel and internal medicine	CHU Ambroise Paré
SCHELSTRAETE Petra	Pediatrics, pneumology and infectiology	UZ Gent
SCHIRVEL Carole	Epidemiology, infection prevention and control	UC Louvain, Saint-Luc
SCHOEVAERDTS Didier	Geriatrics, infectiology	UC Louvain, CHU Namur

SMEESTERS Pierre	Pediatrics, infectiology, vaccinology	HUDERF
SOENTJENS Patrick	Travel medicine, vaccinology, zoonotic diseases, HIV	ITG-IMT-ITM, Defense
SPODEN Julie	General medicine	SSMG
SWENNEN Béatrice	Epidemiology and vaccinology	ULB
TUERLINCKX David	Pediatrics and vaccinology	CHU UCL Namur
VAN DAMME Pierre	Epidemiology, vaccinology, infectiology, public health	U Antwerpen
VAN ERMEN Ann	Pharmacology	BCFI-CBIP
VAN LAETHEM Yves	Infectiology, vaccinology and travel medicine	ex-CHU Saint-Pierre, ULB
VANDEN DRIESSCHE Koen	Pediatrics, infectiology, oncology	UZA
VEKEMAN Veerle	General medicine	Kind en Gezin
VERHAEGEN Jan	Immunology, clinical microbiology, transplantation	UZ Leuven
WAETERLOOS Geneviève	Quality of vaccines and blood products	Sciensano

The following experts were heard but did not take part in endorsing the advisory report:

BOUTON Brigitte	Inspector General for Seniors and Family - Health and Infrastructure at SPW	AVIQ
DAEMS Joël	Directorate Drugs	RIZIV-INAMI
DE SCHUTTER Iris	Pediatrics, infectiology, pneumology, vaccinology, travel clinic	VAZG
DRAGUEZ Bertrand	Health Inspection Advisor	FPS Health, RMG
HOORELBEKE Bart	Expert Advisor in Public Health Emergency	FPS Health, RMG
JONG Veerle	Infection control and vaccinology	VAZG
MALI Stéphanie	Expert Advisor in Public Health Emergency, pharmacology, clinical research, vaccinology	FPS Health, RMG
MENDEZ Murielle	Public and environmental health, economics	Kaleido
PERIN Belinda	General medicine, Vaccinology	AVIQ
SABBE Martine	Vaccinovigilance and safety of vaccines	AFMPS-FAGG
TAAME Adrae	General medicine	CCC-GGC
THEETEN Heidi	Vaccinology	VAZG
TEUGHELS Stefan	Medical Director Domus Medica General medicine, public health, EBM	Domus Medica

VIGNERON Laurence	Coordinator of the Spearhead Domain Vaccines	AFMPS-FAGG

In preparation of this report, a collaboration was established between 11 countries to exchange knowledge and try to come to more harmonised recommendations. Belgium took the lead for this exchange. Experts from the following countries participated: Austria, Belgium, Finland, Germany, Ireland, Poland, Sweden, Switzerland, The Netherlands, UK and Spain.

Within this collaboration, the companies Bavarian Nordic and Valneva were heard on October 17, 2024, and a presentation was given by Dr Susan Hills on December 13, 2024, on the recommendations published by CDC.

We invited ECDC during these meetings and opened the dialogue between experts in travel medicine across countries and the specific need for up-to-date maps and epidemiological data in outbreak settings.

The Belgian Study Group of Travel Medicine (link) reviewed the conclusions and endorses the advisory report.

About the Superior Health Council (SHC)

The Superior Health Council is a federal advisory body. Its secretariat is provided by the Federal Public Service Health, Food Chain Safety and Environment. It was founded in 1849 and provides scientific advisory reports on public health issues to the Ministers of Public Health and the Environment, their administration, and a few agencies. These advisory reports are drawn up on request or on the SHC's own initiative. The SHC aims at giving guidance to political decision-makers on public health matters. It does this on the basis of the most recent scientific knowledge.

Apart from its 25-member internal secretariat, the Council draws upon a vast network of over 500 experts (university professors, staff members of scientific institutions, stakeholders in the field, etc.), 300 of whom are appointed experts of the Council by Royal Decree. These experts meet in multidisciplinary working groups in order to write the advisory reports.

As an official body, the Superior Health Council takes the view that it is of key importance to guarantee that the scientific advisory reports it issues are neutral and impartial. In order to do so, it has provided itself with a structure, rules and procedures with which these requirements can be met efficiently at each stage of the coming into being of the advisory reports. The key stages in the latter process are: 1) the preliminary analysis of the request, 2) the appointing of the experts within the working groups, 3) the implementation of the procedures for managing potential conflicts of interest (based on the declaration of interest, the analysis of possible conflicts of interest, and a Committee on Professional Conduct) as well as the final endorsement of the advisory reports by the Board (ultimate decision-making body of the SHC, which consists of 30 members from the pool of appointed experts). This coherent set of procedures aims at allowing the SHC to issue advisory reports that are based on the highest level of scientific expertise available whilst maintaining all possible impartiality.

Once they have been endorsed by the Board, the advisory reports are sent to those who requested them as well as to the Minister of Public Health and are subsequently published on the SHC website (www.hgr-css.be). Some of them are also communicated to the press and to specific target groups (healthcare professionals, universities, politicians, consumer organisations, etc.).

In order to receive notification about the activities and publications of the SHC, please contact: info.hgr-css@health.belgium.be.

Notes

www.superiorhealthcouncil.be

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