# TICK-BORNE ENCEPHALITIS – BASIC INFORMATION ABOUT VACCINATION

## 1. What is tick-borne encephalitis?

Tick-borne encephalitis is a serious viral disease of the central nervous system transmitted by the bite of an infected tick. The first signs of the disease may appear 7–14 days after infection. The disease is usually two-stage. The first period of the disease is characterized by a short, uncharacteristic febrile illness with muscle aches, fatigue and headache. This is followed by a symptom-free period of about 8 days. The second period of the disease is characterized by signs of central nervous system impairment, which can have long-lasting consequences (headache, fatigue, impaired concentration, memory), sometimes even permanent paralysis (5%) or even death (1%).

# 2. Why vaccination?

The incidence of thick-borne encephalitis in Slovenia is among the highest in Europe, with an average of around 150 cases per year and a very low vaccination rate. People of all ages are at risk of infection, but those aged between 55 and 64 are most often affected. Older people also have, on average, a more difficult course of the disease and are more likely to suffer permanent consequences, so it makes sense to protect against it earlier. Tick-borne encephalitis is most effectively prevented by vaccination.

## 3. Who should be vaccinated and when?

Vaccination against tick-borne encephalitis is recommended for all persons over one year pf age residing in an endemic area or anticipating activities in an endemic area. Since 2019, Slovenia has introduced adult and childhood vaccination against tick-bone encephalitis for children after the age of one year and for adults who reach 49 years of age in the current year. Vaccination for this group is carried out with three doses of vaccine, paid for by compulsory health insurance (CHI). As a rule, the CHI finances the basic vaccination with three doses. Those who have previously started vaccination on a "self-pay" basis can be vaccinated with the following three doses at the expense of the CHI. Vaccination is also available to late vaccinators (children born in 2016 or later and adults who have reached 49 years of age in 2019 or later and have not yet received three doses at the expense of CHI).

Vaccination is also provided to persons who are exposed to tick-borne encephalitis virus in the course of their work or practical training.

Three doses of the vaccine are required for the primary vaccination, the second dose 1–3 months after the first, and the third dose 5–12 months after the second. To maintain protection, further booster doses are then needed, the first after three years and the next every five years. For people over 60 years of age, booster doses are recommended every three years.

The first two doses should preferably be administered during the winter months to achieve protection before the start of the tick season, but vaccination can be initiated at any time.

#### 4. Some people should not be vaccinated or should delay vaccination.

If a person has had a severe allergic reaction after a previous dose of tick-borne encephalitis vaccine, or is allergic to any component of the vaccine in terms of anaphylaxis, they should not be vaccinated with this vaccine. A person with anaphylactic hypersensitivity to eggs should also not be vaccinated

against tick-borne encephalitis. In the case of moderate or severe acute illness (with or without fever), vaccination should be temporarily postponed. Mild illness (e.g. cold) is not an obstacle to vaccination.

## 5. What are the risks of vaccination?

Like all medicines, vaccines can cause serious problems, such as serious allergic reaction. However, after the tick-borne encephalitis vaccination, side effects are mostly mild and rare. The most common symptoms are fatigue, headache, nausea, muscle and joint pain and a reaction at the injection site (e.g. pain). These are transient reactions that pass quickly. Serious side effects are extremely rare.

# 6. What to do in case of a serious reaction?

A serious allergic reaction usually occurs within a few minutes to an hour after vaccination. Signs may include shortness of breath, wheezing or hoarseness, weakness, rapid heartbeat, fainting, paleness or swelling of the throat. The patient should see a doctor immediately, who will take appropriate action and then report the side effect after the vaccination.

## 7. Where can I get more information?