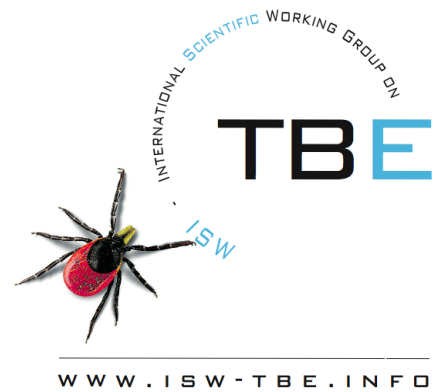


PRESS INFORMATION



International Press Conference

**“TBE: From Epidemiology to Vaccination
Recommendations in 2007
New Issues – Best Practices”**

25th January 2007, 10.00 a.m.
Hotel Bristol, Vienna

Speakers:

Univ.-Prof. Dr. Michael Kunze, Institut für Sozialmedizin, Zentrum für Public Health, Medizinische Universität Wien/Institute of Social Medicine, Centre of Public Health, Medical University of Vienna, Austria

- Presentation of ISW-TBE and résumé of the ISW-TBE Activity Report 2006
- TBE – a travel and tourism disease – but we can protect ourselves against it!

Prof. Dr. Jochen Süß, Friedrich-Loeffler-Institute, Jena, Germany

- TBE in Europe – Why are cases rising again in Europe in 2006?

Prim. Dr. Ulf Baumhackl, Leitung Neurologische Abteilung, Landeskrankenhaus St. Pölten/Head of the Department of Neurology, LK St. Pölten, Austria

- TBE – Clinical picture and long-term damage

Christine Freund, Österreichische Selbsthilfegruppe Zeckenopfer/
Austrian TBE Victims' Self-Help Group

- The TBE Victims' Self-Help Group is promoting an increase in international information and awareness for patients, their relatives and the general public

ISW sounds the alarm: marked increase in TBE cases in Europe

The importance of TBE (FSME) has increased enormously in the whole of Europe in the last 30 years. Between 1974 and 2003 the number of registered cases in all European countries with a TBE risk rose by an average of 400 percent. The risk areas have spread, or it may be that we have seen the discovery of new ones. Factors such as global warming, improvements in diagnosis and changes in the political, social and economic spheres are responsible for this development. Against this background and on the occasion of their 9th annual meeting in Vienna (25th to 26th January 2007), the International Scientific Working Group on Tick-Borne Encephalitis (ISW-TBE) is promoting Europe-wide recommendations on vaccination and advice for travellers with respect to TBE.

“We could push back TBE without any problem, given the high quality and immunogeneity of today’s TBE vaccines,” says Professor Dr. Michael Kunze of the Institute of Social Medicine, Centre of Public Health, Medical University of Vienna, on the occasion of this year’s ISW-TBE meeting in Vienna. “But the fact is that the vaccination rate in many risk areas is too low. Every year there are more than 10,000 new cases of TBE infection. Despite the exemplary arrangements in Austria, even here 2006 saw another 84 cases.”

The TBE experts point to a further marked increase in the incidence of TBE. Switzerland registered a 58 percent increase in cases (131 cases in 2004, 207 cases in 2005) and another rise of 27 percent in 2006 (259 cases). The Czech Republic had a rise of 28 percent from 2004 to 2005 and from 2005 to 2006 a further rise of 58 percent (500 cases in 2004, 642 cases in 2005, 1017 cases in 2006). In Germany too the changes are serious (274 cases in 2004, 431 cases in 2005, and 535 cases in 2006), as well as in Poland (174 cases 2005, 308 cases 2006).

TBE expert group urges comprehensive provision of information

A group of TBE experts set up in 1998, the International Scientific Working Group on Tick-Borne Encephalitis (ISW-TBE), is providing intensive information aimed at encouraging people's readiness to be vaccinated and at the avoidance, as far as possible, of infection. Last year, a new international resource for patients was established with the setting up of **www.tick-victims.info**, the first pan-European TBE network for victims, offering support and a wide range of services and information. Its approach is modelled on the patients' self-help group for TBE victims that has operated successfully in Austria for 20 years, and it is available in 16 European languages.

"TBE is endemic in regions of 27 European countries and we are discovering new risk areas every year. Vaccination is recommended to everyone living in or travelling to areas where it is endemic, children as well as adults. Another important factor leading to disease cases arises when booster doses of the vaccine are not given in time," concludes Prof. Kunze.

By way of a clarion call to public institutions and those with political responsibility in the individual countries of Europe, the international group of TBE experts presented a Europe-wide list of demands along with a call to intensify awareness of TBE as the great challenge facing health policy in the 21st century. A common European definition of the terms "endemic TBE area" and "TBE case" has already been presented to the ECDC (European Centre for Disease Prevention and Control). More work is being devoted to Europe-wide TBE vaccination recommendations and advice to travellers regarding TBE. The ISW is planning its own travellers' website for the general public for 2007 as part of the intensification of the information campaign (**www.TBE-prevention.info**) as well as mailings and information folders.

"TBE is a virus disease for which there is no treatment that can be given to protect after the event. Although not all ticks have the TBE virus, when an infected tick transfers the infection to a human, it can lead to serious disease," warns Primar Dr. Ulf Baumhackl of the Department of Neurology at the Landeskrankenhaus St. Pölten. It is only recently that detailed investigations into

TBE epidemiology have begun to be carried out. The estimated number of undetected cases of encephalitis transmitted by ticks is therefore very high.

Austria's self-help group – a banner for all to see

The awareness that exists among Austrians about the TBE virus is due in no small measure to the comprehensive information provided by the TBE Victims' Self-Help Group. This group was founded over 20 years ago with the aim of supporting victims who contracted TBE, borreliosis or ehrlichiosis through tick-bite, and also to support their relatives.

"The TBE Victims' Self-Help Group, 'SHG Zeckenopfer' is unique of its kind in Europe", says Christine Freund, the Self-Help Group's director. The ISW-TBE experts therefore believe the establishment of similar self-help groups in other severely affected areas such as the Czech Republic, Slovenia, Switzerland and Germany to be desirable. Austria is in a position to contribute a great deal of know-how in this field.

Long-term damage can result in up to 58 percent of patients

According to the World Health Organization (WHO), TBE is a serious acute disease that affects the central nervous system and can lead to long-term neurological complications in 35 to 58 percent of patients; one to two percent of these patients die. No causal treatment for TBE is known at present. Prevention by means of special clothing and/or tick repellents has been shown to be insufficiently reliable. However, TBE can be prevented by active immunisation (injection into the muscles of the upper arm).

When this immunisation has been carried out in accordance with the prescribed schedule, specific antibodies are formed. These antibodies are able to fight an infection resulting from a tick-bite by an infected tick as soon as it occurs, so preventing the disease-causing virus from spreading through the body. A person who has been immunised has the best possible protection from the disease and its consequences. The best time for the TBE vaccine to be given is in winter, to ensure that vaccine protection has been achieved before the tick season starts in the spring.

Danger for tourists: every year, 60 million travel to areas where TBE is endemic

“The whole problem is building up: on the one hand the risk areas are spreading; on the other, more and more people are travelling,” says Prof. Dr. Jochen Süss of the Friedrich-Loeffler-Institute in Jena, Germany. Many tourists have no experience in their home countries of TBE or of appropriate preventive measures, but are exposed to this dangerous virus in Central and Eastern Europe and in some northern European regions.

Tourists from Amsterdam, for example, could be infected while out walking in Austria. Just as easily, unsuspecting cyclists from England on a cycle tour of the Baltic states could be bitten by ticks. Vaccination expert Professor Kunze urges, “Given the continual growth in the numbers of UK tourists in endemic countries, it is only a question of time before this group too finds an increase in the number of TBE cases. Travellers from the UK need to be made aware that, once the disease has broken out, there is no effective treatment for sequelae, conditions that can develop in consequence. Immunisation with a TBE vaccine, in the context of preventive travel medicine, is the only method that offers lasting protection over the longer period.”

Preventive measures such as wearing long trousers and long-sleeved shirts or applying tick repellents to the skin are capable of preventing tick-bites and therefore other diseases spread by ticks, such as Lyme disease (borreliosis) or anaplasmosis. Rapid removal of the tick can combat these two infections. This is not true for TBE, because the transmission of the Flavivirus can happen instantly following the tick-bite. Also, borreliosis and anaplasmosis can be treated effectively with antibiotics, whereas there is at present no causal treatment available for TBE.

Infection via the digestive tract is also possible if victims consume fresh cheese types or unpasteurised milk during their visit to an endemic area.

General practitioners, institutes of tropical medicine and other suitable organisations of the public health system should provide travellers with recommendations and information on prevention and about vaccination against TBE.

Travellers returning from an endemic area who complain of high temperature, paralysis and other symptoms associated with the central nervous system should consult a doctor immediately – especially if they have not yet been vaccinated against TBE.

Ticks are dangerous disease vectors

Around 850 species of tick have been described in the world as a whole. In Europe, eight of the group known as hard ticks have become particularly important as vectors that pass on the disease of TBE, and also borreliosis. The most important and most widespread of these is *Ixodes ricinus*, the sheep tick. The body of the female is capable of massive stretching – it can absorb approximately 100 to 200 times its body mass in blood, which increases its volume by a factor of 120.

“Contrary to the widely-held assumption, ticks do not climb trees to drop down onto their victims,” says Christine Freund. Instead they tend to move about on the ground, in tall grass or in scrub and undergrowth, where they are brushed off onto their unsuspecting hosts – mice, hedgehogs, deer, birds or of course humans. A contact time of a few fractions of a second is all it takes for the tick to attach itself in an instant to the host’s skin (animal or human being).

The tick uses a sensory structure called Haller’s organ, on the last segment of its first pair of legs, to orient itself to suck the blood. It can use this and other sensory organs to react to thermal, chemical and physical stimuli such as vibrations and variations in temperature caused by a passing animal or human.

Humidity and warmth are ideal conditions for ticks. They are particularly active after a rainy day in summer. As long as the ground in the woodland is still damp, ticks can even survive quite long dry periods. They are less active in the cold. “Mild winters like the one we are having this year ensure that a large number of ticks will survive,” says the expert Dr. Jochen Süß. “Recently in Europe, the season for ticks has been significantly longer.” He says that in general a slow spread of risk areas has been observed, probably due to global warming. In Finland, for example, the virus can now be found just 200 km south of the Arctic Circle.

TBE vaccine – from Austria out into the world

The development of the vaccine against tick-borne encephalitis is an Austrian success story. It has resulted in a drastic reduction in the number of cases of TBE from 677 in 1979 to 54 cases in 2001 with a vaccination rate of 87 percent, an exemplary figure for the whole of Europe. The record lowest number of cases was 41, achieved in 1999.

In 1920, an unknown polio-like disease symptom was discovered among forestry workers in the area around Wiener Neustadt. Moritsch and Krausler isolated the FSME (TBE) virus that caused the disease (FSME stands for Frühsommer-Meningoenzephalitis, literally 'early summer meningo-encephalitis', now usually known in English as tick-borne encephalitis or TBE). In 1973, Prof. Christian Kunz of the Institute of Virology succeeded in producing a small quantity of a trial vaccine. In 1976 came the first large-scale production of the Austrian vaccine by the company IMMUNO-AG. In 1981, on the initiative of the Ärzte- und Apothekerkammer (Chamber of physicians and pharmacists) and ARGE Pharmazeutika (Association of pharmaceutical wholesalers) in collaboration with the Bundesministerium für Gesundheit und Umweltschutz (Federal Ministry of Health and Ecology) and the public service, an information campaign about vaccination against tick-borne disease was begun throughout Austria. This vaccine remains an Austrian success story to this day and is one of the best-studied vaccines. Since its introduction in Austria in 1976 its successful use has been repeated millions of times in both children and adults.

The following will be pleased to respond to any questions:

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