

I02.2. Collection of best practices on zoonoses interventions

University of Zagreb Faculty of Veterinary Medicine, Croatia

Type of practice	guideline/ case study/ project/ intervention programme / testing/ guidance tools / articles
Best practice title	Program for determining the prevalence of <i>Francisella tularensis</i> in Republic of Croatia
Period of implementation	Two years
Location	The area of five counties in the central Croatia
Geographical coverage	National
Contacts	<p>Ministry of Agriculture Republic of Croatia, Ulica grada Vukovara 78, 10000 Zagreb, Croatia, www.mps.hr</p> <p>Veterinary and Food Safety Directorate, Planinska 2a, 10000 Zagreb, Croatia</p> <p>University of Zagreb Faculty of Veterinary Medicine, Department of Microbiology and Infectious Diseases with Clinic. Heinzelova 55, 10000 Zagreb</p> <p>University of Zagreb Faculty of Forestry, Svetošimunska cesta 25, 10000 Zagreb, Croatia</p>
Link	<p>University of Zagreb Faculty of Veterinary Medicine, Department of Microbiology and Infectious Diseases with Clinic. Laboratory for leptospirae. Heinzelova 55, 10000 Zagreb</p> <p>www.vef.unizg.hr</p>
Target audience	<p>People professionally exposed to infection with <i>Francisella tularensis</i> (veterinarians, hunters, farmers, forest workers...)</p> <p>People who frequently stay in nature (hikers, mountaineers, athletes...)</p>
Objectives	<p>The objectives of this program are:</p> <ul style="list-style-type: none"> - Determine the frequency of infections in rodents and hematophagous insects and determine areas where tularemia occurs endemic - Identify the most common reservoirs of diseases in the Republic of Croatia - Determining the frequency of infections in domestic animals on a certain

	<p>sample by finding specific antibodies to <i>Francisella tularensis</i></p> <ul style="list-style-type: none"> - Correlate the appearance of tularemia in rodents in a given geographic area with the occurrence of tularemia in people from the same area - Investigate and identify risk factors (number of rodent population, weather conditions, etc.) which lead to an increased occurrence of this disease in the major host
<p>Short description</p>	<p>During several years of implementation the program will enable to determine the frequency of infections in rodents, hematophagous insects and domestic animals and determine areas where tularemia occurs endemic. Based on these results, risk factors for people will be identified, which will ensure the application of quality biosecurity measures for people exposed to infection.</p>
<p>Activities/Action plan</p>	<ol style="list-style-type: none"> 1. Determine the frequency of infections in rodents and hematophagous insects 2. Determine the frequency of infections in domestic animals 3. Identification the most common reservoirs of diseases 4. Determine areas where tularemia occurs endemic 5. Correlate the appearance of tularemia in rodents in a given geographic area with the occurrence of tularemia in people from the same area 6. Investigate and identify risk factors which lead to an increased occurrence of this disease in the major host 7. Ensure the application of quality biosecurity measures for people exposed to infection.
<p>Resources/Products</p>	<p>Resources:</p> <p>1. Material:</p> <p>a) Sample of 600 small rodents per year (sampling with traps by the linear transect method) - Identification of rodent species, collection of hematophagous insects from rodents, sections, organ sampling. b) Collection and serological testing of 300 serum samples of domestic animal including cats, dogs and pasture feeding horses and cows.</p> <p>2. Methods:</p> <p>a) Sampling small rodents with traps by the linear transect method b) Identification of rodent species c) Collection and identification of hematophagous insects d) Rodent section and organ sampling e) Serological testing of serum samples of domestic animals f) Molecular testing (TaqMan real-time PCR) of samples of homogenized rodent liver g) molecular testing (TaqMan real-time PCR) of group samples of homogenized rodent liver hematophagous insects</p> <p>Products:</p>

	<ol style="list-style-type: none"> 1. Establishing epizootical and epidemiological situation of tularemia in continental Croatia 2. Determining risk factors for people exposed to tularemia 3. Application of quality biosecurity measures for people exposed to tularemia.
Impact	Continuous monitoring of epizootological and epidemiological situation of tularemia in continental Croatia, will enable the application of quality and timely preventive measures for protection of animal and human health.
Key words	tularemia, <i>Francisella tularensis</i> , epizootiology, epidemiology, prevention