

Russia's experience in assessing and managing public health risks from contaminants entering food products

P.Z. Shur, N.V. Zaitseva, D.A. Kiryanov, D.V. Suvorov

In the Russian Federation, food safety is regulated by the Technical Regulations of the Eurasian Economic Union and federal laws. A number of agencies are responsible for food safety, the main one being the Federal Service for Surveillance on Customers Rights Protection and Human Wellbeing. As in most countries of the world, in Russia, in order to achieve a high degree of protection of human life and health, food law is based on risk analysis data, the main provisions of which are harmonized with the documents of the Codex Alimentarius Commission. At the same time, to solve a number of problems, primarily hygienic standardization, new methodological approaches to food risk assessment have been created. These approaches, focused on quantitative assessment and forecasting of health risks, involve the widespread use of mathematical modeling of the dependence of the probability of negative effects (responses) in the form of dysfunction of organs and body systems on the levels and scenarios of exposure to food hazard factors. The implementation of such approaches has made it possible to substantiate a number of Russian hygienic standards for permissible contents in food products based on risk criteria, including veterinary drugs and biological agents. At the same time, experimental studies are being conducted to substantiate the parameters for assessing the risk associated with the oral intake of chemicals unintentionally present in food products, which include nitrosamines. Such studies are currently being conducted within the framework of Russian-Vietnamese scientific cooperation and at the National Institute for Food Control.