

This is a provisional English translation of an excerpt from the original full report.

Risk Assessment Report

Avilamycin

(Antimicrobial-resistant bacteria)

Food Safety Commission of Japan (FSCJ)

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ABSTRACT

Avilamycin is an antibiotic designated as a feed additive in Japan. Based on the Assessment Guideline for the Effect of Food on Human Health Regarding Antimicrobial-Resistant Bacteria Selected by Antimicrobial Use in Food Animals (Food Safety Commission of Japan, September 30, 2004), FSCJ identified some hazards associated with selection of antimicrobial-resistant bacteria developed by the use of avilamycin in livestock animals.

Avilamycin is not used in human medicines. Moreover, there are no human antibiotics with a chemical structure similar to avilamycin. In the cross resistance test, avilamycin administered into pigs and chickens did not affect the selection of *Escherichia coli* resistant to antimicrobials of current use.

Although resistant bacteria have been found by antimicrobial susceptibility testing on enterococci derived from domestic animals, yearly changes in MIC₅₀ and MIC₉₀ were small and the resistance rate for avilamycin did not tend to increase.

Regarding antimicrobial resistance determinants, a resistance gene transferable to other bacteria has been reported to be coded on the plasmid. However, very few strains of the avilamycin resistant enterococci isolated from animals had this resistance gene.

The result of hazard identification indicates that the use of avilamycin in livestock animals could cause the selection of resistant bacteria. However, the resistant bacteria would not pose human health hazards via food consumption, because avilamycin is not used in human medicines, and no cross resistance to human antibiotics has been reported. Thus, FSCJ concludes that the risk to human health via food consumption arisen from the antimicrobial-resistant bacteria selected through the use of avilamycin in livestock animals is negligible.

Since information regarding antimicrobial-resistant bacteria is not sufficient, FSCJ considers that the Ministry of Agriculture, Forestry and Fisheries, a risk management organization, should continue to collect further information.