

VIM-1 producing *Salmonella* Infantis isolated from swine and minced pork meat in Germany

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Abstract:

Carbapenems are considered as last-line clinical antibiotics used to treat severe human infections caused by multidrug-resistant Gram-negative bacteria. In 2011 VIM-1 carbapenemase-producing *Salmonella enterica* subsp. *enterica* serovar Infantis (*S. Infantis*) and *Escherichia coli* were isolated for the first time from livestock farms in Germany. Within this study we describe the first detection of a *bla*_{VIM}-harbouring *S. Infantis* recovered from food (minced pork meat) in 2015. Mapping of NGS data to already published resistance plasmid sequences revealed that the plasmid harboured by the food isolate is 100% similar to the previously published plasmid sequence of isolate R27 from swine in 2011. This finding hints towards a link between the isolates and to a transmission of this plasmid or these *Salmonella* isolates from the primary production into the food chain. The occurrence of Carbapenemase-producing Enterobacteria (CPE) in food and food-producing animals might bear a risk of getting colonized with CPEs and raises major public health concerns. Therefore trace back investigations will be performed to search for the source of the *S. Infantis* clone.

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Disclaimer:

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