Epidemiology of Shiga toxin producing Escherichia coli (STEC) in Switzerland

Original title / Originaltitel
Epidemiologische Untersuchungen zum Vorkommen und zum Virulenzspektrum Shiga-Toxin bildender Escherichia coli (STEC) als Beitrag zum risk assessment

Summary / Zusammenfassung
The importance of the Shiga toxin-producing E. coli (STEC) (verotoxin-producing E. coli, VTEC) group has increased since a food-borne infection caused by enterohaemorrhagic E. coli (EHEC) has first been described in 1983. Other serogroups like O26, O111 and O103 have also been diagnosed in affected patients in addition to the classic serovars O157:H7 and O157:H-.
Apart from the capability to produce Shiga toxin, these pathogroups may possess accessory virulence factors associated with the capacity to colonize the gut, such as intimin and a 90 kbp virulence-associated plasmid. In patients, Shiga toxin-producing E. coli are associated with watery or bloody diarrhea, hemorrhagic colitis and hemolytic-uremic syndrome (HUS).
The aim of this project is to isolate STEC strains from slaughter animals, carcasses, raw milk, minced beef as well as from staff from food producing companies and to compare their serotype distribution and presence of virulence attributes.

Publications / Publikationen


Keywords / Suchbegriffe
STEC, O157, non-O157, phenotypic and genotypic strain characteristics, epidemiology

Project Leadership and Contacts / Projektleitung und Kontakte
Prof. Dr. R. Stephan (Project Leader) stephanr@fsafety.uzh.ch
Dr. C. Zweifel zweifelc@fsafety.uzh.ch

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Laboratorio de Referencia de E. coli (LREC), Departamento de Microbioloxia e Parasi-toloxia, Facultade de Veterinaria, Universidade Stgo. de Compostela, 27002 Lugo, Spain
National Reference Laboratory for Escherichia coli, Centre for Infectiology and Pathogen Characterization, Federal Institute for Risk Assessment, Berlin, Germany
National Consulting Laboratory on Hemolytic Uremic Syndrome, Institute for Hygiene, University of Munster, Munster, Germany

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