First Report of a Cluster of Extended-Spectrum Beta-Lactamase Producing *Klebsiella pneumoniae* Sequence Type 101 Isolated from Food and Humans

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**INTRODUCTION**

Healthcare settings are meant to be the most important reservoir for ongoing transmission of multidrug resistant *Klebsiella pneumoniae* with only few reports pointing to the food chain as another potential source.

Highlight: We report the first cluster of ESBL producing *K. pneumoniae* isolates from ST101 deriving from one poultry and two clinical samples collected within the setting of a prospective study designed to determine the diversity and migration of ESBL-producing Enterobacteriaceae (ESBL-PE) between humans and their environment.

**METHODS**

- This finding is part of a bigger study performed in the city of Basel, Switzerland, from June 2017 until May 2018.
- ESBL-PE were systematically collected from routine clinical practice, and monthly from wastewater and foodstuffs throughout the city.
- Illumina NextSeq and GridION sequencing.
- Core genome MLST-genotyping was applied to assess genetic relatedness. A cluster was defined as less than 15 allelic differences in the 2358 genes analysed.
- Resistance genes and replicons were identified in the three genomes.

**RESULTS**

Healthcare settings are meant to be the most important reservoir for ongoing transmission of multidrug resistant *Klebsiella pneumoniae* with only few reports pointing to the food chain as another potential source.

Highlight: We report the first cluster of ESBL producing *K. pneumoniae* isolates from ST101 deriving from one poultry and two clinical samples collected within the setting of a prospective study designed to determine the diversity and migration of ESBL-producing Enterobacteriaceae (ESBL-PE) between humans and their environment.

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