

Hidden Reservoir: ESBL+ *C. freundii* & *K. pneumoniae*



NETHERLANDS

UNIVERSITY MEDICAL CENTER, GRONINGEN
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PROCEDURE:

ERCP

PATHOGEN:

ESBL-PRODUCING CITROBACTER
FREUNDII & K. PNEUMONIAE



CASES INFECTED:

- 3 KNOWN
- TWO BLOODSTREAM
INFECTIONS, ONE UTI



REPROCESSING FAILURE:

STANDARD CULTURES FAILED; CONTAMINATION DETECTED AFTER SCOPE DISASSEMBLY AND NEXT-GENERATION SEQUENCING REVEALED ORGANISMS IN HARD-TO-CLEAN CHANNELS.



PATHOGEN IMPACT:

CAUSES BLOODSTREAM AND URINARY TRACT INFECTIONS; ESBL CONFERS RESISTANCE TO BROAD-SPECTRUM CEPHALOSPORINS.

SOURCE: Paterson DL, Bonomo RA. Extended-spectrum beta-lactamases: a clinical update. Clin Microbiol Rev. 2005;18(4):657–686.

CONSEQUENCES:

- SCOPE REDESIGN
- ENHANCED CLEANING PROTOCOLS
- ROUTINE NGS-BASED SURVEILLANCE
- COST MAINLY IN DEEP CLEANING
- MICROBIOLOGICAL TESTING

**Protect your patients, protect your hospital ,
let's find the right solution together.**

SOURCE: Cimen B, Arends A, Koopman F, et al. Uncovering the spread of drug-resistant bacteria through next-generation sequencing-based surveillance: Transmission of ESBL-producing Enterobacterales by a contaminated duodenoscope. J Hosp Infect. 2024;140:145–152. <https://pubmed.ncbi.nlm.nih.gov/38459544/>

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