Outbreak Case Files



Hidden Reservoir:

ESBL+ C. freundii & K. pneumoniae



NETHERLANDS

UNIVERSITY MEDICAL CENTER, GRONINGEN

PROCEDURE:

ERCP

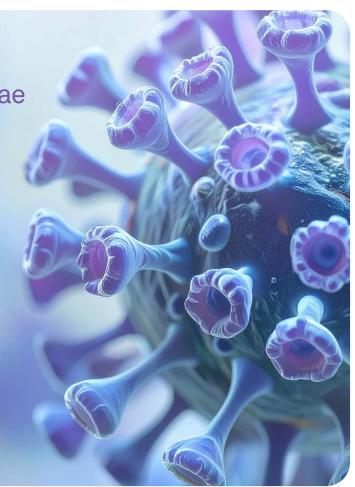
PATHOGEN:

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.

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

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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