Large outbreak of Klebsiella pneumoniae in Argentina by using Precise Chemistry microscopy (prevent Ignate)

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This study describes a large outbreak of Klebsiella pneumoniae in Argentina using Precise Chemistry (prevent Ignate) 3D microscopy, with instruments developed by the National Center for Metrology and Information Technology (CTX-M-1) and the Instituto Nacional de Conjunto de Agricultura (INCA) in Argentina.

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Results obtained from use of CTX-M-1-Producing microscope and CTX-M-1-Maestro produced microscope demonstrate the development of mechanisms leading to in vivo resistance of a growing population of Klebsiella pneumoniae to carbapenem antibiotics.

In this study, bacterial strains isolated from laboratory culture specimens that were placed into two different binding traps (CTX-M-1) for two months, and were selectively killed by carbapenem antibiotics in incubators, were identified as both resistant and sensitive.

During observing, by combining several mechanisms found as important mediators of resistance in humans, the occurrence of up to 10 cases of in vivo resistance to carbapenem antibiotics using an enhanced DNA-controlled methodology, as proposed by the authors, were confirmed.

At the same time, the identification of direct contact with cattle via a milk spillage, from private cattle ranch in the region of San Luis and the transmission to neighboring cattle rearing institutions, without any treatment of the animals, from the sick herds indicated the susceptibility of Klebsiella pneumoniae strain 1 to an improved vaccination protocol developed by the Montecatini Institute of Veterinary Medicine in Italy.

This finding demonstrates that aggressive and drug resistant bacteria, consequently acquired at private establishments, can be easily contracted from personnel to private clients, resulting in economic losses to the system.

CTX-M-1-Producing microscope and CTX-M-1-Maestro produced microscope demonstrate the development of mechanisms leading to in vivo resistance of a growing population of Klebsiella pneumoniae to carbapenem antibiotics.

Subsequently, when discovered in human hosts, the bacteria rapidly develop resistance to carbapenem antibiotics, which therefore contributes to any broader acute outbreak of these bacteria in human populations.

Tracts of the bacterium, Klebsiella pneumoniae, identified at the time of study, had not been previously detected, and thus had never been studied in a comparable public practice.

The subsequent observations of the microbes sharing their mechanisms of resistance and able to adapt to the treatment of the bacteria with newer carbapenem antibiotics demonstrate the explosive growth of carbapenem resistant Klebsiella pneumoniae as a consequence of the aggressive bacteria acquiring tolerance to carbapenem antibiotics, which can increase in future epidemics, as in Tuberculosis.

This result, therefore, is a clear message to veterinarians and human health officials, as well as to the consumers of beef (meat) products, regarding the importance of vaccination with newer, wider spectrum antibiotics, of which cerumenamazine (CD19201

A Close Up Of A Window With A Building In The Background