

Antibiotic Resistance of Foodborne Pathogens in Ready-to-eat Meat Products: A Review of the Current Status

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Ready-To-Eat (RTE) meat products are consumed in the same state as it is sold without further preparation to ensure safety to the consumer. These foods normally include ingredients that may or may not be cooked and some are regarded as potentially hazardous therefore can support proliferation of food pathogens and should be kept at certain temperatures to reduce the growth of pathogens that may be present in the food. A number of food pathogens have been implicated with RTE foods beef products included and some of the pathogens that have been isolated include: *Bacillus cereus*, *Staphylococcus aureus*, *E. coli*, *Shigella* etc. The level of contamination varies with countries or regions and this is determined by a number of factors some of which are: method of preparation, type of food and possibility of post-processing contamination. In some studies, some of the isolates have been found to be resistant to commonly used antibiotics which are used in both human and veterinary medicine which are exemplified by tetracycline, penicillin, streptomycin and sulpha methoxazole. This phenomenon has been linked to improper use of antibiotics by humans in farming practices like using as growth promoters in domestic animals and application in sub-lethal doses while treating farm animals. Antibiotic resistance by food borne pathogens is due to various mechanisms and varies from organism to organism and various antibiotics. Emergence of antibiotic resistance has become a global problem and it is estimated if nothing is done to curb the situation, deaths will be 10 million annually by year 2050 as this result in inefficiency of antibiotics used for treatment of human diseases, patients have to purchase second or third generation drugs which are more expensive and economy losses. This study presentation reviews antibiotic resistance of foodborne pathogens in RTE foods therefore contributing to food safety.

Keywords: Ready-To-Eat, Meat products, food borne, Pathogens Antibiotics, Antibiotic resistance, food safety