



Antimicrobial susceptibility of *Salmonella enterica* strains isolated from raw beef, mutton and intestines sold in Ouagadougou, Burkina Faso.

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ABSTRACT

Objectives: The aim of this study was to determine the prevalence and antibiotic resistance profile of *Salmonella enterica* isolated from raw beef, mutton and intestines sold in Ouagadougou; Burkina Faso.

Methodology and Results: A total of 450 samples from raw meat of beef (n=175), mutton (n=175), beef intestine (n=50) and sheep intestine (n=50) were analyzed using standards microbiological method for the detection of *Salmonella*. The isolates were tested for antibacterial resistance using the agar diffusion method with fourteen commonly used antibiotics. In this study, *Salmonella* contaminated 19% (86/450) of the samples with 27% (47/175) of beef, 18% (9/50) of beef intestine, 11% (19/175) of mutton and 22% (11/50) of sheep intestine. *Salmonella* strains isolates were most resistant to tetracycline and cefalotin than other tested antibiotics.

Conclusion and main findings: The high rate of *Salmonella* strains in animals can pose a major public health risk in Burkina Faso. In addition, the susceptibility test confirms the circulation of antibiotic resistant pathogens in raw meat. Interestingly, these findings indicate a presence of multiresistant strains. The regulation of antibiotics use in animal husbandry is recommended to prevent antibiotic resistance in humans.

Key words: Beef, Mutton, Raw Intestine, *Salmonella*, Antimicrobial Susceptibility, Burkina Faso.