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Prevalence and antibiogram of *Salmonella* isolates in fresh backyard poultry meat of Chitwan and Kathmandu valley, Nepal

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Salmonellosis is an infectious disease of humans and animals caused by organisms *Salmonella*. Salmonellosis is prevalent in developing countries including Nepal where it still remains as a major health problem. Moreover, the emergence of multiple drug resistant *Salmonella* from poultry has produced a potential threat to public health. Research addressing these issues is sparse in Nepal. So, this cross sectional study aims at determining the prevalence, antibiogram and risk factors of *Salmonella* from dressed meat of backyard chicken of Chitwan and Kathmandu valley, Nepal with special emphasis on isolation of *Salmonella* bacteria and their drug resistant pattern. A total of 94 samples of dressed meat samples from Chitwan and Kathmandu valley were collected and processed according to OIE Terrestrial Manual, 2010, chapter 2.9.9 Antibiogram of identified *Salmonella* spp. was evaluated against nine commonly used antibiotics by using disc diffusion method following CLSI guidelines. The prevalence of *Salmonella* spp was found 19.14%. Among those isolated *Salmonella*, gentamycin and chloramphenicol was highly sensitive drug (87.5%) followed by erythromycin (75%), streptomycin (62.5%) and ciprofloxacin and doxycycline (50%). On the other hand highest resistance was observed with penicillin, ampicillin, cloxacillin and trimethoprim (100%) followed by cephalixin 75% and nitrofurantoin (55%). The meat of Chitwan and Kathmandu valley is contaminated with antibiotic-resistant *Salmonella* and slaughtering practices play significant role in contamination. It is necessary to train the butchers about hygienic slaughtering practice. The consumers as well as butchers should adopt safety measures to prevent themselves from antibiotic resistant *Salmonella*. The veterinary practitioners should adopt prudent use of antibiotics in poultry.

Biography

Prazila Shrestha has completed her BVSc in 2008 and MVSc (Microbiology) in 2010 from Institute of Agriculture and Animal Science, Tribhuvan University. She is Employee of Animal Health Research Division under Nepal Agricultural Research Council as Scientist since 2012. Her Current Research involves Seroprevalence of Q-fever in Nepal and Molecular Characterization of *Salmonella* spp. in poultry.

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