# **Titre d’article**: Methicillin-Resistant Staphylococcus aureus (MRSA) in Poultry Species in Algeria: Long-Term Study on Prevalence and Antimicrobial Resistance

**Abstract :**

Abstract: Methicillin-resistant Staphylococcus aureus (MRSA) is a well-known pathogen with a serious impact on human and veterinary public health. To determine antibiotic resistance of MRSA in poultry, 4248 nasal swabs were collected from 840 poultry farms in 18 different Wilayas (provinces) of Algeria. Swabs were collected between 2011 and 2018 from breeding hens, laying hens, broilers, and turkeys. Identification was carried out by the classical culture methods, and the disc diffusion test was used to determine the antibiotic resistance patterns. S. aureus was isolated from 477 (56.8%) farms, and flock prevalence was 52.8%, 48.8%, 48.4%, and 75.6% in breeding hens, laying hens, broilers, and turkeys, respectively. MRSA was isolated from 252 (30%) farms and flock prevalence was 22%, 33.5%, 27.4%, and 36%, respectively. As expected, all MRSA isolates were resistant to cefoxitin, penicillin G, amoxicillin/clavulanic acid, and oxacillin. High levels of resistance were found for tetracycline (82.5%), erythromycin (70.6%), clindamycin (68.6%), and ciprofloxacin (50%). Almost all isolates were susceptible to vancomycin (100%) and mupirocin and rifampicin (99.2%), followed by chloramphenicol (82.3%), and gentamicin (76%). This moderate proportion of MRSA in poultry poses a considerable risk to public health. The results of this study highlight the need for control programs that encompass primary animal production and the food chain to mitigate contamination and spread of MRSA in the poultry industry of Algeria, and consequently to humans.