

# ANIMAL HEALTH & VETERINARY MEDICINE

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## Leptospirosis in slaughter livestock in Gauteng province, South Africa: Isolation and serological studies

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Leptospirosis, caused by the pathogenic serovars of the Genus *Leptospira*, is considered a re-emerging zoonosis of global importance and it is responsible for morbidities and mortalities in humans and animals, particularly in developing countries. Abattoirs, although primarily used for animal slaughter, also provide invaluable facilities for both active and passive disease surveillance. In South Africa, there is a dearth of current information on leptospirosis isolates, the last report on the isolation rate for *Leptospira* spp. was in 1999. The objectives of the study were to determine the prevalence of *Leptospira* spp. in slaughter livestock by isolation and serology and to determine the serovars of infecting *Leptospira*. Visits were made to 14 randomly selected abattoirs in Gauteng Province where blood and kidney samples were collected. Isolation of *Leptospira* spp. was achieved in EMJH media using standard procedures and the presence and titers of serovars were determined by the microscopic agglutination test (MAT) with a panel of 21 serovars using standard techniques. Twelve (3.9%) of the 305 kidneys cultured were positive for *Leptospira* spp. while the seroprevalence of leptospirosis was 19.6% (67/341). A total of 10 serovars were detected in the sera of which serovars Bratislava (7.0%), Hardjo (6.5%) and Swazijak (2.9%) were predominant. The data provided in this study regarding the frequency of isolation and seroprevalence of *Leptospira* spp. and the infecting serovars in slaughter livestock may be vital for developing strategies to prevent and control leptospirosis in South Africa.

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