



Enterobacteria Carried by *Muska domestica* in the Western Region of Saudi Arabia

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Abstract: The incidence of enterobacteria carried by *Muska domestica* (house fly) was investigated. A total of 148 house flies were collected from three cities of the western region (Jeddah, Makkah and Taif), Saudi Arabia. Areas of high and low socio-economic level in addition to a poultry farm in Taif City were included. Twenty-eight bacterial isolates representing different species and strains belonging to the target family *Enterobacteriaceae* were recovered from the flies. The most prevalent isolates encountered were: *Klebsiella pneumoniae* ssp *pneumoniae* (23.64%), *Proteus mirabilis* (16.1%), *Enterobacter cloacae* (14.8%), *Serratia marcescens* (13.51%). However, *Escherichia coli*, *Esch. vulneris*, *Esch. hermannii*, *Enterobacter agglomerans*, *Providencia spp*, *Kluyvera sp.*, *Cedecea spp*, and *Rahnella aquatilis* were isolated in lower percentages. Higher isolation rate of *Klebsiella pneumoniae* (40.4%) was evident in flies collected from low socio-economic areas. In respect to poultry farm, *Klebsiella oxytoca*, *Providencia alcalifaciens*, *Enterobacter cloacae* and *Enterobacter agglomerans* were isolated in different percentages. Antibiotic sensitivity pattern of some isolates were tested and the following species were resistant to Penicillin G: 30 isolates of *Klebsiella pneumoniae*, 11 isolates of *Enterobacter cloacae*, 8 of *Esch. coli*, 7 of *Serratia marcescens*, 7 of *Klebsiella oxytoca* and 4 of *Proteus mirabilis*. The results obtained emphasize the important role of house flies in transmitting pathogens and/or opportunistic pathogens to different environments especially hospitals, restaurants and schools. Control of house flies should therefore be mandatory.

Keywords: House fly, Enterobacteria, Incidence, *Muska domestica*

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