DETECTION OF POTENTIAL PATHOGENIC *Klebsiella pneumonia* IN THE SURFACE WATER AND SEDIMENTS FROM MATANG MANGROVE ESTUARY

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*Klebsiella pneumonia* (*K. pneumonia*) is an opportunistic pathogen causing numerous nosocomial- and community-acquired infections in Malaysia. In this study, *Klebsiella pneumonia* isolated from eight stations located along Kuala Sangga Besar and Kuala Sangga Selinsing River in Matang estuary, were detected for virulence genes and antimicrobial resistance. A total of fifty-five *K. pneumonia* were isolated from the surface water and sediments from Matang estuary. Its identity was confirmed by biochemical assays and polymerase chain reactions (PCR). These isolates were tested against six groups of antimicrobial agents, namely Beta-lactams, Macrolides, Aminoglycosides, Tetracycline, Chloramphenicol, and Quinolones. The estuarine *K. pneumonia* isolates from station F (downstream of Kuala Sangga Besar river) were found to be highly resistant to Tetracycline (100%) and Streptomycin (66%); whereas *K. pneumonia* isolates from upstream of Kuala Sangga Besar River were highly resistant to beta-lactams (station G, 42.8%; station B, 25.0%). Virulence genes, *FimH*, *ugE* and *wabG*, were detected in the estuarine *K. pneumonia* isolates. Among the three detected virulence genes, *wabG* (83.63%) was the most dominant. The *K. Pneumonia wabG* gene plays a role in biosynthesis of the core lipopolysaccharide and in virulence. The findings of this study indicate that the commensal *K. pneumonia* isolated from the Matang estuary was potentially pathogenic and therefore pose a risk to public health.